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### The Victoria History of the Counties of England

EDITED BY WILLIAM PAGE, F.S.A.

## A HISTORY OF HEREFORDSHIRE

IN FOUR VOLUMES

VOLUME I

#### THE

# VICTORIA HISTORY OF THE COUNTIES OF ENGLAND

#### **HEREFORDSHIRE**



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#### GENERAL ADVERTISEMENT

The Victoria History of the Counties of England is a National Historic Survey which, under the direction of a large staff comprising the foremost students in science, history, and archaeology, is designed to record the history of every county of England in detail. This work was, by gracious permission, dedicated to Her late Majesty Queen Victoria, who gave it her own name. It is the endeavour of all who are associated with the undertaking to make it a worthy and permanent monument to her memory.

Rich as every county of England is in materials for local history, there has hitherto been no attempt made to bring all these materials together into a coherent form.

Although from the seventeenth century down to quite recent times numerous county histories have been issued, they are very unequal in merit; the best of them are very rare and costly; most of them are imperfect and many are now out of date. Moreover, they were the work of one or two isolated scholars, who, however scholarly, could not possibly deal adequately with all the varied subjects which go to the making of a county history.

In the VICTORIA HISTORY each county is not the labour of one or two men, but of many, for the work is treated scientifically, and in order to embody in it all that modern scholarship can contribute, a system of co-operation between experts and local students is applied, whereby the history acquires a completeness and definite authority hitherto lacking in similar undertakings.

The names of the distinguished men who have joined the Advisory Council are a guarantee that the work represents the results of the latest discoveries in every department of research, for the trend of modern thought insists upon the intelligent study of the past and of the social, institutional, and political developments of national life. As these histories are the first in which this object has been kept in view, and modern principles applied, it is hoped that they will form a work of reference no less indispensable to the student than welcome to the man of culture.

#### THE SCOPE OF THE WORK

The history of each county is complete in itself, and in each case its story is told from the earliest times, commencing with the natural features and the flora and fauna. Thereafter follow the antiquities, pre-Roman, Roman, and post-Roman; ancient earthworks; a new translation and critical study of the Domesday Survey; articles on political, ecclesiastical, social, and economic history; architecture, arts, industries, sport, etc.; and topography. The greater part of each history is devoted to a detailed description and history of each parish, containing an account of the land and its owners from the Conquest to the present day. These manorial histories are compiled from original documents in the national collections and from private papers. A special feature is the wealth of illustrations afforded, for not only are buildings of interest pictured, but the coats of arms of past and present landowners are given.

#### HISTORICAL RESEARCH

It has always been, and still is, a reproach that England, with a collection of public records greatly exceeding in extent and interest those of any other country in Europe, is yet far behind her neighbours in the study of the genesis and growth of her national and local institutions. Few Englishmen are probably aware that the national and local archives contain for a period of 800 years in an almost unbroken chain of evidence, not only the political, ecclesiastical, and constitutional history of the kingdom, but every detail of its financial and social progress and the history of the land and its successive owners from generation to generation. The neglect of our public and local records is no doubt largely due to the fact that their interest and value is known to but a small number of people, and this again is directly attributable to the absence in this country of any endowment for historical research. The government of this country has too often left to private enterprise work which our continental neighbours entrust to a government department. It is not surprising, therefore, to find that although an immense amount of work has been done by individual effort, the entire absence of organization among the workers and the lack of intelligent direction has hitherto robbed the results of much of their value.

In the Victoria History, for the first time, a serious attempt is made to utilize our national and local muniments to the best advantage by carefully organizing and supervising the researches required. Under the direction of the Records Committee a large staff of experts has been engaged at the Public Record Office in calendaring those classes of records which are fruitful in material for local history, and by a system of interchange of communication among workers under the direct supervision of the general editor and sub-editors a mass of information is sorted and assigned to its correct place, which would otherwise be impossible.

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In addition to a general map in several sections, each History contains Geological, Orographical, Botanical, Archaeological, and Domesday maps; also maps illustrating the articles on Ecclesiastical and Political Histories, and the sections dealing with Topography. The Series contains many hundreds of maps in all.

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In order to secure the greatest possible accuracy, the descriptions of the Architecture, ecclesiastical, military, and domestic, are under the supervision of Mr. C. R. Peers, M.A., F.S.A., and a committee has been formed of the following students of architectural history who are referred to as may be required concerning this department of the work:—

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Maritime History of Coast Counties. SIR JOHN K. LAUGHTON, M.A., M. OPPENHEIM, and others

Topographical Accounts of Parishes and Manors. By Various Authorities

Agriculture. SIR ERNEST CLARKE, M.A., Late Sec. to the Royal Agricultural Society, and others

Forestry. JOHN NISBET, D.Œc., and others

Industries, Arts and Manufactures

By Various Authorities

Social and Economic History

Ancient and Modern Sport. E. D. Cuming, the Rev. E. E. Dorling, M.A., and others Cricket. Sir Home Gordon, Bart.



Meroford Guthedral and Bridge.

# THE VICTORIA HISTORY OF THE COUNTY OF HEREFORD

EDITED BY
WILLIAM PAGE, F.S.A.

VOLUME ONE



LONDON
ARCHIBALD CONSTABLE

AND COMPANY LIMITED 1908

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Eardisley: The Ca					•	•	•	•	•	•		•	•	250
Pembridge Court I					•	•	•	•	•	•			•	
Breinton Camp							•	•	•	•			•	251
Bridstow: Wilton							•	•					•	252
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Brinsop 'Camp'							•			•		•	•	20
Eastnor: Bronsil C								•					•	, ,
Downton-on-the-R			_			•	•			•	•		•	254
Moccas Castle .		•	•	•	•	•	•			٠	•	٠	,	254
Walterstone Camp		•	•	•	•	•	•			•				255
Whitbourne Court		•	•	•	•	٠	•							256
Brockhampton: Fa	-	Cam	p'	•	•			٠	•					256
Eye: Ashton 'Can	-	•			•			•						257
Grendon Bishop:	Westir	ngton	'Cam	p'	•					•				257
Leominster Grange		•	•		•	•								257
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Geological Map .												betr	veen x	xvi, I
Orographical Map .		٠	۵											16, 17
Botanical Map .			,											8,39
Pre-Historical Map .													ac <b>ing</b>	157
Roman Map													"	167
Ancient Earthworks Ma	ıp.												"	199
Domesday Map .	_								e				,,	100

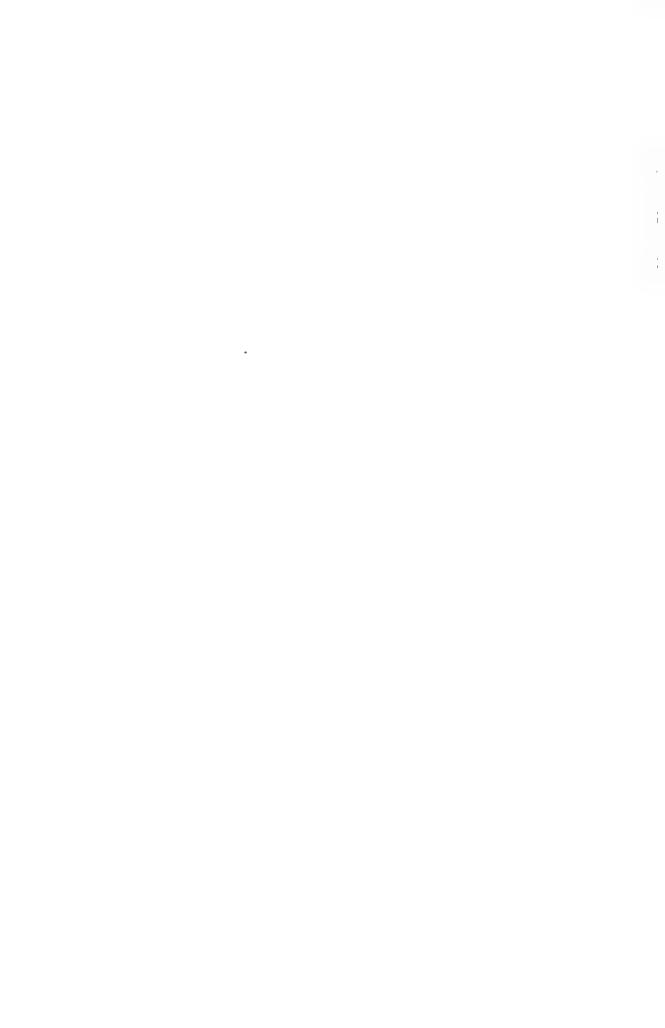
#### PREFACE

LTHOUGH Herefordshire as a border county has much of historical interest from a very early date, yet hitherto it has had but one county history and that incomplete. The Rev. John Duncumb, M.A., F.S.A., commenced to compile a history of the county in 1790 at the expense of Charles, 11th Duke of Norfolk. The first volume was published in 1804, and the first part of a second in 1812, but at the death of the Duke of Norfolk in 1815 the work ceased. The materials collected by Duncumb, which belonged to the Duke's executors, found their way into the hands of Thomas Thorpe, bookseller, in 1837, who issued a further instalment of Volume II, which was This volume was in 1866 completed by Judge William already in type. Henry Cooke, M.A., K.C., F.S.A., who continued Duncumb's work, issuing a third volume in 1882 and a fourth in 1892. Since Duncumb's time more material has been made available, and therefore Judge Cooke's continuation is a great improvement on the original work.

Members of the Woolhope Naturalists' Field Club have done much to throw light upon the history of the county, and to many of them the Editor is much indebted, particularly to the President, Mr. H. Cecil Moore, M.R.C.S., who has given advice and assistance in all matters, and to Mr. James G. Wood, M.A., F.G.S., F.S.A., who has rendered valuable assistance in the identification of place-names for the translation

of the Domesday Survey and in many other ways.

The Editor has to thank Professor Haverfield, M.A., LL.D., Mr. W. Farrer, and others for information regarding the Roman remains, and Mr. David Douglas, the Woolhope Naturalists' Field Club, the Royal Archaeological Institute, and the Cambrian Archaeological Association for illustrations.



#### TABLE OF ABBREVIATIONS

Abbrev. Plac. (Rec.	Abbreviatio Placitorum (Re-	Chartul	Chartulary
Com.)	cord Commission)	Chas	Charles
Acts of P.C	Acts of Privy Council	Ches	
Add	Additional	Chest	
Add. Chart	Additional Charters	Ch. Gds. (Exch.	
Admir		K.R.)	King's Remembrancer)
Agarde		Chich	Chichester
_	Ancient Correspondence	Chron	Chronicle, Chronica, etc.
	Ancient Deeds (Public Record	Close	Close Roll
		0	0 .
A 2420	Office) A 2420 Annales Monastici	Colch	Colchester
Ann. Mon		O 11	Collections
Antiq		Coll	Commission
App	Appendix		
Arch	Archæologia or Archæological	Com. Pleas	Common Pleas
Arch. Cant	Archæologia Cantiana	Conf. R	
Archd. Rec	Archdeacons' Records	Co. Plac	
Archit		Cornw	Cornwall
Assize R		Corp	
Aud. Off		Cott	Cotton or Cottonian
Aug. Off		Ct. R	
Ayloffe	Ayloffe's Calendars	Ct. of Wards	
		Cumb	
Bed	Bedford	Cur. Reg	Curia Regis
Beds	Bedfordshire		
Berks	Berkshire	D	Deed or Deeds
Bdle	Bundle	D. and C	Dean and Chapter
В.М	British Museum	De Banc. R	De Banco Rolls
Bodl. Lib	Bodley's Library	Dec. and Ord	Decrees and Orders
Boro	Borough	Dep. Keeper's Rep.	Deputy Keeper's Reports
Brev. Reg	Brevia Regia	Derb	Derbyshire or Derby
Brit	Britain, British, Britannia, etc.	Devon	Devonshire
Buck	Buckingham	Dioc	Diocese
Bucks	Buckinghamshire	Doc	Documents
		Dods. MSS	Dodsworth MSS
Cal	Calendar	Dom. Bk	Domesday Book
Camb	0 1 11 11 0 1 11	Dors	Dorsetshire
Cambr		Duchy of Lanc	Duchy of Lancaster
Cambi	brensis, etc.	Dur	Durham
Campb. Chart			
Cant	~	East	Easter Term
Cap		Eccl	Ecclesiastical
Carl	_	Eccl. Com.	Ecclesiastical Commission
Cart. Antiq. R.	0 4 1 7 11	Edw	D 1 1
C.C.C. Camb	Corpus Christi College, Cam-	Eliz.	Elizabeth
C.C.C. Camo	bridge	17. 1	
Certiorari Bdles.	Certiorari Bundles (Rolls	Engl. Hist. Rev	England or English English Historical Review
(Rolls Chap.)	Chapel)	Enr	Enrolled or Enrolment
Chan. Enr. Decree	Chancery Enrolled Decree	Epis. Reg	
R.	Rolls	Esch. Enr. Accts	Episcopal Registers
Chan. Proc			Escheators Enrolled Accounts
C1 C	Chancery Proceedings	Excerpta e Rot. Fin.	Excerpta e Rotulis Finium
Chant. Cert	Chantry Certificates (or Cer-	(Rec. Com.)	(Record Commission)
	tificates of Colleges and	Exch. Dep	Exchequer Depositions
Chan He	Chantries)	Exch. K.B	Exchequer King's Bench
Chap. Ho	Chapter House	Exch. K.R	Exchequer King's Remem-
Charity Inq	Charter Ball as Harry III	E.L. F.T.D	brancer
Chart. R. 20 Hen.	Charter Roll, 20 Henry III.	Exch. L.T.R	Exchequer Lord Treasurer's
III. pt. i. No. 10	part i. Number 10		Remem brancer

#### TABLE OF ABBREVIATIONS

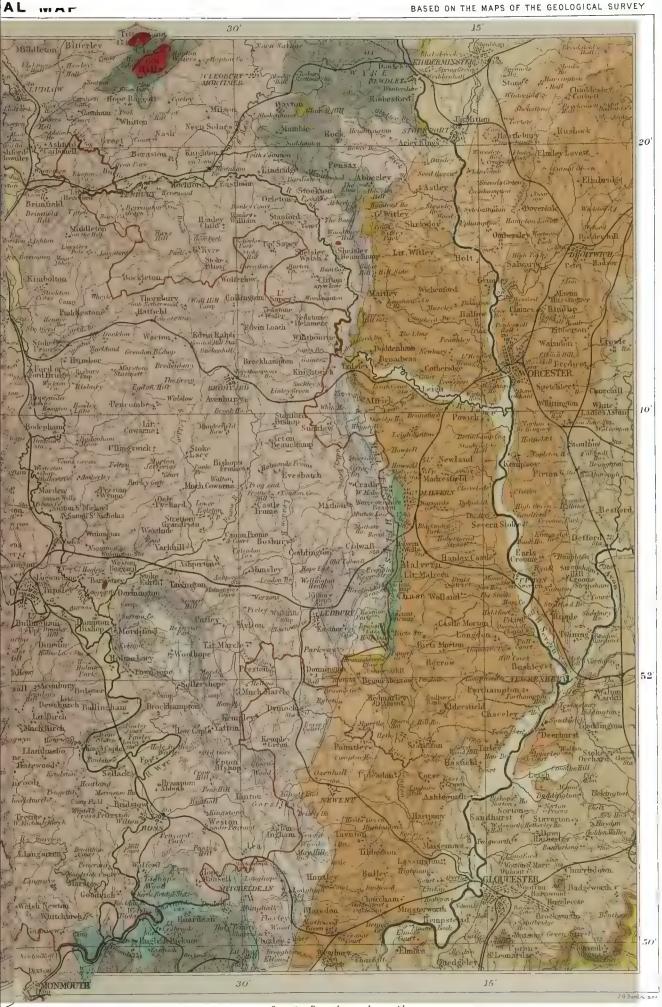
Exch. of Pleas, Plea R.	Exchequer of Pleas, Plea Roll	Memo. R	Memoranda Rolls
Exch. of Receipt .	Exchequer of Receipt	Mich	Michaelmas Term Middlesex
Exch. Spec. Com	Exchequer Special Commis-	Mins. Accts	Ministers' Accounts
	sions	Misc. Bks. (Exch. K.R., Exch.	Miscellaneous Books (Ex-
Feet of F	Feet of Fines	T.R. or Aug.	chequer King's Remem- brancer, Exchequer Trea-
Feod. Accts. (Ct. of		Off.)	sury of Receipt or Aug-
Wards)	Wards)		mentation Office)
	Feodaries Surveys (Court of	Mon	Monastery, Monasticon Monmouth
Wards) Feud. Aids	Wards) Feudal Aids	Mun	Muniments or Munimenta
fol	Folio	Mus	Museum
Foreign R	Foreign Rolls		
Forest Proc	Forest Proceedings	N. and Q	Notes and Queries
Gaz	Gazette or Gazetteer	Norf	Norfolk
Gaz	Genealogical, Genealogica,	Northants	Northampton Northamptonshire
	etc.	Northumb	Northumberland
Geo	George	Norw	
Glouc	Gloucestershire or Gloucester Guild Certificates (Chancery)	Nott	Nottinghamshire or Notting- ham
Ric. II.	Richard II.	N.S	New Style
			•
Hants		Off	
Harl Hen	Harley or Harleian Henry	Orig. R	
Heref	Herefordshire or Hereford	O.S Oxf	
Hertf	Hertford	· · · · · · · · · · · · · · · · · · ·	omora, or omora
Herts	Hertfordshire	p	Page
Hil Hist	Hilary Term History, Historical, Historian,	Palmer's Ind	Palmer's Indices
	Historia, etc.	Pal. of Chest Pal. of Dur	Palatinate of Chester Palatinate of Durham
Hist. MSS. Com	Historical MSS. Commission	Pal. of Lanc	
Hosp	Hospital Hundred Rolls	Par	
Hunt	Huntingdon	Parl	
Hunts	Huntingdonshire	Parl. R	Parliament Rolls Parliamentary Surveys
T 1	T 111	Partic. for Gts.	Particulars for Grants
Inq. a.q.d Inq. p.m	Inquisitions ad quod damnum Inquisitions post mortem	Pat	
Inst		P.C.C	Prerogative Court of Canter- bury
Invent	Inventory or Inventories	Pet	
Ips	Ipswich Itinaraw	Peterb	Peterborough
Itin	Itinerary	Phil	Philip
Jas	James	Pipe R	Pipe Roll Plea Rolls
Journ	Journal	Pop. Ret	Population Returns
T 1 T'1	T 1 .1 TH	Pope Nich. Tax.	Pope Nicholas' Taxation (Re-
Lamb. Lib Lanc	Lambeth Library Lancashire or Lancaster	(Rec. Com.) P.R.O	cord Commission) Public Record Office
L. and P. Hen.	Letters and Papers, Hen.	Proc	Proceedings
VIII.	VIII.	Proc. Soc. Antiq	Proceedings of the Society of
Lansd	Lansdowne	m#	Antiquaries Part
Ld. Rev. Rec Leic	Land Revenue Records Leicestershire or Leicester	pt	Publications
Le Neve's Ind	Le Neve's Indices		
Lib	Library	R	Roll
Lich Linc	Lichfield Lincolnshire or Lincoln	Rec	Records
Linc	London Lincoln	Recov. R	Recovery Rolls Rentals and Surveys
		Rep	Report Surveys
m	Membrane	Rev	Review
Mem	Memorials	Ric	Richard

# TABLE OF ABBREVIATIONS

Roff	Rotuli Curiæ Regis	Trans Transl	
Sarum	Series	Trin	Trinity Term
Sess. R	Shrewsbury	Univ	University
Staff	Society Society of Antiquaries Somerset Somerset House State Papers Domestic Staffordshire Star Chamber Proceedings Statute Stephen Subsidy Rolls Suffolk Surrey Sussex	Com.) Vet. Mon V.C.H Vic vol  Warw Westm Westmld Will Wilts	Vetusta Monumenta Victoria County History Victoria Volume  Warwickshire or Warwick Westminster Westmorland William Wiltshire Winchester diocese
	Surveys of Church Livings (Lambeth) or (Chancery)	Yorks	Worcestershire or Worcester Yorkshire

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EREFORDSHIRE is 40 miles in length and 35 in breadth. Of its surface-extent of 833 square miles, four-fifths is occupied by the Old Red Sandstone. Obviously then, this is the rockformation of Herefordshire par excellence.

The Old Red Sandstone has a general synclinal arrangement, rocks of greater antiquity rising up from beneath it in places on the east and northwest. This syncline is in plan —-shaped; the limbs converging to the north (conjoining in southern Shropshire), and diverging to the south. The western one runs obliquely through the north-west part of Herefordshire, Brecknockshire, Carmarthenshire, and Pembrokeshire; the eastern one, due south through east Herefordshire.

The rocks which floor the greater part of Herefordshire north of the escarpment of the Black Mountains and the hills of the Forest of Dean to the south of Ross, belong to the lower division of the Old Red Sandstone,

the higher beds having been removed by denudation.

The great Herefordshire syncline has a southerly tilt. Now it is easy to see that if the synclinal arrangement and the southerly tilt alone affected the distribution of the Old Red rocks, the higher beds of that system would extend uninterruptedly across the southern end of the county—except, of course, where the rivers had cut gorges. But they do not extend all across the southern portion, because the ——shaped syncline has been divided into two by a puckering at Usk in Monmouthshire, where rocks older than the Old Red Sandstone, namely, the Silurian, show through, forming an inlier, thus——1.

On the west side of this inlier lies the great South Wales coalfield; on the east, the smaller, but no less perfect, Forest of Dean coalfield. It is the Carboniferous Limestone of a portion of the north-western fringe of this latter basin that gives rise to the well-known scenery of the neighbourhood of Symond's Yat, where precipitous cliffs overlook the meandering Wye.

Not only is the broad southern end of the syncline divided into two by the Usk inlier, but the perfection of the syncline is marred farther to the north by several other inliers of Silurian Beds. Such are Shucknall Hill, Hagley, and the district known to geologists as 'The Woolhope'—a portion of the outer rim of which is that high ground visible from Hereford to the east.

Since all these beds are sedimentary formations, and must therefore have been laid down more or less horizontally, it is evident that at some time subsequent to their formation they must have been much flexured. Crust-pressures were the cause of this flexuring, and Professor T. T. Groom has satisfactorily shown that it took place in that comparatively short interval which intervened between the time of formation of the older and the Upper Coal Measures. In that interval the rocks of Herefordshire, in common with those of most parts of the world, were greatly flexured. Folds, which

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may be classed under two heads according as their alignment is (1) north and south (Malvernian direction), or north-west and south-east (Woolhope or

Charnian), or (2) at right angles to these, were produced.

In the case of the folds of both sets, so intense was the crust-pressure, that frequently the anticlines were overfolded in the opposite direction to that from which the force acted. Professor Groom sees no reason for supposing that the differently orientated anticlines were produced otherwise than contemporaneously; but this appears to be a matter that requires more investigation.

Where an axis of one set of folds crossed the corresponding axis of the other the stress found relief in causing the rocks to assume a dome-like form. Mr. T. Mellard Reade, speaking of the genesis of the Woolhope Dome, recognized in the disposition of its rocks the expression of peripheral stress. It is easy to see that crust-pressure—interpreted as forces acting from

southerly and easterly directions—would induce such a stress.

The beautiful scenery of this county is mainly due to the crust-pressures which effected a flexuring of its rocks near the close of Carboniferous times. If a district were composed of one kind of rock only its configuration would be tame in the extreme, because the essentials for what has been aptly described as 'differential denudation' to produce a diversified scenery would be wanting. The more diverse the rocky composition, the more diverse will be the scenery. Crust-pressures have caused the elevation of the Malvern Hills, and the differential action of denudation upon the hard Archaean rocks amid the softer beds of sedimentary origin has produced that serrated range, which, in the words of Lord Avebury, presents 'one of the most striking features in the interior of the kingdom.'

The rock-systems which are represented in part or whole older than the Old Red Sandstone, are the Silurian, Cambrian, and Pre-Cambrian or Archaean; those which are younger, the Carboniferous, Permian, Triassic, and Pleistocene (see Table of Strata). Only very small areas are occupied by rocks younger than the Old Red, and it is very doubtful how far these beds originally extended over the county. Certainly, since the latest 'solid' rocks were laid down over the county there has elapsed a vast period of time during which denudation has been sculpturing the surface of the shire. The River Wye, whose history is more interesting than that of perhaps any other British river, has played no small part in outlining the present configuration. As will be shown later this river is made up of portions of several rivers once Directed in the first place by the lie of the rocks it has become almost independent thereof by its continued growth, although it has lost as well as gained tributaries. By the network of streams thus evolved has been developed that undulating expanse which is the glory of Herefordshire scenery.

The 'superficial' deposits, consisting of sand, gravel, and clay, have been laid down in patches of various thickness and extent upon this much sculptured surface. During the later phases of the development of the Wye System, they have been somewhat redistributed in places or cut through by the streams and rivers. Bordering these are the most recent rocks in the form of mud, known as 'Alluvium,' and gravel, the level stretches which they

make furnishing some of the richest meadow-land in the county.

#### TABLE OF STRATA

			Approximate thickness in feet
Pleistocene Series	Alluvial deposits, peat, &c River-gravels, cave and glacial deposits	Recent shells, plant-remains, &c. (Numerous mammalian remains have been obtained from the cave in the Great Doward, and a few from the gravels	_
Pliocene . Series .  Miocene . Sories .  Older Tertiary Cretaceous . Systems .	Absent from Herefordshire .		
Jurassic )  (Keuper { Upper Stage   Lower	Red and variegated marls	No fossils recorded	<u>-</u>
Deconian  Deconian  Deconian  Deconian  Carboniferous  Lower  Carboniferous  Limestone  Cornstones  Cornstones	Conglomerates of a dark red colour, containing pebbles of Uriconian and Silurian rocks Absent from Herefordshire.  Shales with bands of ironstone nodules, and coal-seams Quartzose sandstones, coarsegrained in the upper portion, fine-grained in the lower (Massive limestones, frequently dolomitized, with shaly beds at various horizons (Yellow, grey, and red sandstones, with a few bands of red shale Quartz grits and conglomerates (Brownstones. Red marls and chocolate-colouredsandstones, passing down into Upper Cornstones. Red and grey sandstones, marls, and cornstones (Rowlstone Beds. Marls and sandstones) Lower Cornstones Lower Cornstones  Lower Cornstones  Pteraspis Beds  Temeside Shales. Olive shales and layers of grit, sometimes	No fossils recorded	Up to 200  1,900  470  645 (less in this county?)  200 to 500  1,500  2,500 to 4,000 or more  110 to
Temeside	(ossiferous (Downton Castle Sandstone. (a) Thinly bedded sandstones (b) Massive bedded sandstones Downton Bone-Bed (Sandy Shales (Upper Whitecliffe, or Chonetes Flags Ludlow Bone-Bed Calcareous shales and flags Lower Whitecliffe, or Rynchonella Flags	Cyathaspis Banksi, Auchenaspis Egertoni, Cephalaspis Murchi- soni, Pterygotus Banksi, Eury- pterus pygmaeus, Beyrichia, &c.  Chonetes striatella . Scaphaspis ludensis, Eurypterus,	30 to 50  30 to 50  150 to 160
	Concretion-Band	Rhynchonella nucula punctatus, &c.	) 110 to

TABLE OF STRATA (continued)

			Approximate thickness in feet
Aymestrey Stage.  Lower Ludlow  Wenlock Limeston  Wenlock Shales  Woolhope Limeston  Upper Llandov  Lower  Llandov  Arenig  Landov	Dark grey argillaceous shale, with calcareous concretions in places Grey subcrystalline, usually concretionary limestone Fine-grained, grey and dark-coloured clayey shales, with lines of nodules in places Bluish grey, usually massive limestone in the Woolhope district, but more shaly in the Malvern and Ludlow district Tarannon Shales. Shales an grey laminated sandstone passing down into May Hill Sandstone. Sandstones and conglomerates grey, yellow, and purple coloured.	Omphyma turbinatum, Favosti gothlandicus, Monograptus spp. Cyrtograptus spp., &c.  e s d d Petraia bina, Stricklandinia le Pentamerus oblongus, Cte donta Eastnori, &c.	in feet  40 to 150 75 to 250  440 to 700 150 to 280 640 to 900 30 to 50
Lower or Middle or Upper or Olenellian Paradoxidian  Menerian Paradoxidian  Harlech  Harlech	with interstratined ignor bands  (Upper Lingula Flags. 'Bl Shales' with interstrati igneous bands  (Polymorphina - Lapworthi Zo Shales, black, with gr seams  Hollybush Sandstone	Dictyonema sociale  ack Peltura, Agnostus, Ctenopyge, Sphaerophthalmus,  one.  Protospongia, Kutorgina cingu var. pulsilla  tain yolithus fistula, H. malverne Scolecoderma antiquissimum, torgina Phillipsi, &c.  (K. Phillipsi, Hyolithus prima Obollela (?) Groomi	Not less than 300 goo to 1,100
Pre-Cambrian Uriconian or Archaean Malvernia	tuffs and gneissic I		

# FRE-CAMBRIAN SYSTEM

The oldest rocks in the county belong to the Pre-Cambrian or Archaean group, and comprise a Granitic rock, diorites, and felsites, and gneissic, schistose, and volcanic rocks. Such occur on the eastern side forming the Malvern Hills; but it is somewhat doubtful if the igneous rocks on the Morth-western side, composing Stanner Hill, are of the same era. Possibly there

are rocks of Pre-Cambrian age present, but if so, they are veined with later intrusions.

The Archaean rocks admit of being classed in three systems, according as to whether they are crystalline, volcanic, or sedimentary.

The crystalline rocks are the oldest, and are known in the Malvern and contiguous districts as the Malvernian. They form—except for a very small mass—the Malvern Hills, and comprise a haplite, diorites, felsites, and schistose and gneissic rocks. The gneissic and schistose rocks, according to the most generally accepted views, have been formed out of the others.

It is improbable that the haplite and diorites formed part of the original Their mineralogical characters, so far as can be judged, indicate that they must have consolidated and crystallized under the pressure of a considerable thickness of rock, but of this original crust nothing is definitely known.

Above the Malvernian come the Uriconian and Longmyndian Systems. The Uriconian is essentially a volcanic system. Rocks belonging thereto occur on the confines of Herefordshire and Worcestershire, and form the rocky spurs which project from the eastern base of the Herefordshire Beacon into the Severn Valley. They include rhyolites, andesites, basalts, and tuffs, not differing materially from the products of recent volcanoes, and were first identified as Uriconian by Dr. C. Callaway, who paralleled them with the similar rocks of Lilleshall Hill in Shropshire.1 Since Dr. Callaway first pointed out their true age, they have been studied by Mr. A. H. Green,<sup>2</sup> Mr. F. Rutley, Mr. A. Harker, and Mr. H. D. Acland.

Beds of sedimentary origin compose the Longmyndian System, but there are no exposures of them in Herefordshire. They may be present far below the surface, flanking, but separated by fault-planes from, the Pre-Cambrian 'massif' of the Malvern Hills, and underlying the whole of the county.

Long before the Longmyndian Beds were formed, and before the period of volcanic activity, the Pre-Cambrian haplite and diorites had in many places been changed into gneisses and schists by mechanical stresses of inconceivable intensity set up by crust-pressure. The massive Malvernian rocks were made to shear and slide over each other, and in many places eventually to assume an appearance very suggestive of thinly stratified sedimentary deposits altered by The latter indeed was the view held by the earlier geologists as to the origin of the crystalline schists of the Malvern Hills.

For nearly sixty years preceding the promulgation of the present views as to their structure, the Malvern Hills formed the subject of much geological investigation. Leonard Horner described them as a granitic mass intruded into the associated beds,6 and Murchison also regarded them as essentially of igneous origin, but included in the 'igneous' mass the strata altered by the intrusion.7 Professor John Phillips thought that the Palaeozoic rocks associated with the range had been laid down against a shore-line composed of the Archaean rocks; while H. B. Holl held that the Cambrian

<sup>&</sup>lt;sup>1</sup> Quart. Journ. Geol. Soc. xxxvi (1880), p. 536.

<sup>2</sup> Ibid. li (1895), pp. 1-8.

<sup>4</sup> Petrology for Students (1895), pp. 55, 143, &c.

<sup>6</sup> Trans. Geol. Soc. Ser. i (1811), p. 281. <sup>3</sup> Ibid. xliv (1888), p. 740. <sup>5</sup> Quart. Journ. Geol. Soc. liv (1898), p. 556.

<sup>&</sup>lt;sup>7</sup> Silurian System (1839), pp. 417 et seq.; Siluria (1854), p. 92. <sup>8</sup> Mag. and Journ. Sci. xxi (1842); Mem. Geol. Surv. ii, pt. 1 (1848), pp. 66 and 125-6.

and Silurian deposits overlapped the metamorphic series, which he considered was composed of metamorphosed sedimentary and igneous rocks of Pre-Cambrian age.9 The Rev. W. S. Symonds, who knew Siluria second only perhaps to the 'Silurian Chief' himself, also believed that the Malvern rocks were altered sediments; 10 and Mr. Rutley has expressed the opinion that they were formed from metamorphosed tuffs, grits, and sandstones, as well as from volcanic and other igneous rocks." Dr. Callaway's views, however, namely, those outlined above, have been endorsed by Professor Groom in his exhaustive stratigraphical papers on the Malvern Hills,12 and, as we have said, are the most generally accepted.

On the other side of the Herefordshire syncline, on the borders of this county and Radnorshire, are five prominent hills. Two, Old Radnor and Yat Hills, are on one axis trending north-east and south-west; and three, Stanner, Worsel Wood, and Hanter Hills, on another parallel to the first.

A portion only of Stanner Hill is in Herefordshire. The rocks composing it are gabbros, dolerites, felsites, and granitoid rocks, and their age is still under discussion.

#### CAMBRIAN SYSTEM

Cambrian Beds occur in Herefordshire on both sides of the synclinein the South Malvern district, and at Pedwardine, near Brampton Bryan.

Throughout the Cambrian Period Herefordshire was beneath the sea. The coast-line of the mainland was situated to the north-west.

In Wales the thickness of this system has been estimated at 11,000 ft.; but to the east it rapidly decreases, being in Warwickshire about 3,000 ft. Towards the close of the Cambrian Period movements of the sea-floor took place and a land-surface, probably an island, was formed in what is now called the Midland counties.

In the Midland counties and the Welsh borders the deposit made in the early part of the period was sand, and in the later-until the uplift of the sea-floor occurred—dark-coloured shale. So the Cambrian as developed in the Midlands can be divided into a Lower or Arenaceous Division and an Upper or Shaly.

In those parts of Herefordshire where the Cambrian rocks occur at the

surface a similar dual division can be recognized.

In the South Malverns the Arenaceous Division is represented by the Hollybush Sandstone with the Malvern Quartzite at its base, and the Shaly Division by the 'Malvern Shales'; while intrusive in both are numerous sills

and dykes of several kinds of igneous rocks.

The Hollybush Sandstone and Malvern Quartzite, being the older beds, occur nearest the hills, while the shales are a little removed therefrom. Owing, however, to the causes which elevated the Malvern Hills these arenaceous and shaly deposits are very much faulted, and their geographical distribution and mutual relations difficult to determine. Professor Groom,

<sup>&</sup>lt;sup>9</sup> Quart. Journ. Geol. Soc. xxi (1865), pp. 89, 92, 99, etc.; see also Trans. Woolhope Nat. F. C. 1866, pp. 270-4; Trans. Malvern Nat. F. C. pt. 3 (1853-70), p. 51.

<sup>10</sup> The Flora of Herefordshire, Trans. Woolhope Nat. F. C. 1866 (1867), pp. 1-25.

<sup>&</sup>lt;sup>11</sup> Quart. Journ. Geol. Soc. xliii (1887), p. 508. <sup>12</sup> Ibid. lv (1899), pp. 129-68; ibid. lvi (1900), pp. 138-97.

nevertheless, has mapped them in great detail, together with the numerous igneous rocks with which they are pierced. Where these intrusive igneous rocks occur in the Shale Division they give rise to ground of a very

hummocky appearance.

South Malverns.—The arenaceous rocks were called by Professor J. Phillips in 1848 the Hollybush Sandstone, but their presence had been noted before that year by Murchison and De la Beche. H. B. Holl searched them for fossils, and endeavoured to determine the true succession of their component beds; 18 but little really detailed work was accomplished until Professor Groom undertook their investigation. He described the Malvern Quartzite,14 portions of which are conglomeratic containing fragments of Malvernian and Uriconian rocks, and this shows that a land-surface containing both these rock-types was being denuded at the time of formation of these basal beds. 15 Such conglomerates were noticed by Horner, Murchison, Phillips, Holl, and Symonds; but Professor Groom does not think that any of the patches of this rock now visible are of the very lowest beds, holding that all the present junctions are fault-planes. The Malvern Quartzite is interesting as being the only Quartzite of this stratigraphical position that has afforded traces of organic remains other than worm-tracks; but it is well to bear in mind that the Quartzite after all is only Hollybush Sandstone cemented firmly together by infiltrated silica, and may possibly be of slightly later date than is usually supposed.

The Hollybush Sandstone comprises Sandstones which are massivebedded in the upper portion; but more flaggy, and with shale-partings, in the lower. There are few good exposures of these beds; the best is that in a quarry on the south side of the Ledbury and Tewkesbury Road before it

enters the Hollybush Pass from the west.

The representatives of the Shaly Division occupy a roughly semi-lunar area, extending from near the Obelisk in Eastnor Park to the Raggedstone, where they are faulted against the plutonic rocks of the range. They consist of black and grey shales, called by Phillips the 'Malvern Shales'; but by Holl after their colour—the 'Black Shales' and the 'Grey Shales.' They are veined with intrusive igneous rocks; not contemporaneous, as has usually been taught. For the terms 'Black' and 'Grey Shales' Professor Groom has substituted the names 'White Leaved Oak' and 'Bronsil Shales.' Both of these Professor Groom has subdivided; the former, in ascending order, into (1) Lower White Leaved Oak Igneous Band, of which Polymorphina Lapworthi, an ostracod, that was first discovered in this region and described by Professor Groom, is the zonal fossil, (2) Lower Black Shales, (3) Upper White Leaved Oak Igneous Band, and (4) Upper Black Shales.

The Lower Black Shales were the oldest portion of the 'Malvern Shales' known previous to Professor Groom's researches, and the exposures by the side of the footpath leading from the hamlet of the White Leaved Oak to Fowlet Farm, and in the fields to the north-west of the hamlet, have long been known as good collecting grounds. Associated with the rocks of the Upper White Leaved Oak Igneous Band, in the shale portion of which both Symonds and Professor Groom have found trilobites, Professor Groom

 <sup>13</sup> Quart. Journ. Geol. Soc. xxi (1865), pp. 87, 100.
 15 Rep. Brit. Assoc. 1900 (Bradford), p. 739.

<sup>14</sup> Ibid. lviii (1902), p. 90.

<sup>16</sup> Quart. Journ. Geol. Soc. lviii (1902), pp. 83-8.

discovered fragments of a peculiar limestone containing minute organisms which Mr. F. Chapman pronounced to be foraminifera.

The Polymorphina-Lapworthi Zone Professor Groom regards as the top-zone of the Middle Cambrian, and that characterized by Sphaerophthalmus alatus—namely, the Lower and Upper Black Shales and the sedimentary deposits associated with the intervening igneous band—as the top zone of the Upper Cambrian, holding that the Dictyonema, or Bronsil Shales, are best grouped with the Ordovician.

The Grey Shales have been divided into four zones by Professor Groom, namely, in ascending order: (1) The 'Middle' Igneous Band, (2) Lower Grey Shales, (3) Coal Hill Igneous Band, and (4) the Upper Grey Shales. Symonds was the first to discover *Dictyonema sociale* in these shales, and thereby to demonstrate their great antiquity. The neighbourhood of Coal Hill is very picturesque, but the name perpetuates the memory of a ridiculous search for coal in the Cambrian Shales—beds which were formed millions of years before the coal!

The igneous rocks associated with the Malvern Cambrian Beds, according to Professor Groom, are all intrusive and of pre-May Hill Sandstone date.<sup>17</sup> Formerly it was held that the majority of the sills and dykes were contemporaneous, but a number of views have been expressed on the matter by those who have worked them. Professor Watts thinks that 'while certain of the rocks are of this date [pre-May Hill Sandstone], some of the series, as elsewhere, may be younger.' 18

The Cambrian Beds, which are exposed in the lane at Pedwardine on the north-western limits of the county, belong to the Shaly Division and correspond to the Shineton Shales of Shropshire and to the Dictyonema Shales of the South Malverns.<sup>19</sup>

#### Ordovician System

Between the Cambrian and the Silurian should come the Ordovician, but in the South Malverns and at Pedwardine the Upper Llandovery rests directly upon the *Dictyonema* Shales—the whole of the Ordovician, and the Lower Llandovery, are absent. In these parts, therefore, either the Ordovician and Lower Llandovery Beds have not been deposited at all, or they have been deposited in part or whole and subsequently removed. As far as is known at present the former alternative seems the more probable.

As has already been mentioned, in the latest Cambrian times a land surface, probably an island, was found in the Midland and Border counties. Its western coast-line ran from somewhere near May Hill to the north-eastern confines of the county, but then swept westwards to Old Radnor, before turning northward to include in its land-mass the uplands of the Longmynds.

#### SILURIAN SYSTEM

Above the Cambrian Shales, both in the South Malverns and at Pedwardine, is the May Hill Sandstone. This succession shows that at the time

<sup>17</sup> Quart. Journ. Geol. Soc. lvii (1901), pp. 156-83.

Proc. Geol. Assoc. xix (1905), p. 180.
 Quart. Journ. Geol. Soc. xxxiii (1877), p. 659; Trans. Woolhope Nat. F. C. 1882 (1888), p. 197.

of formation of the Sandstone the area of the island, which existed apparently during Ordovician and Lower Llandovery times, had much decreased. The May Hill Sandstone is a littoral deposit, being composed largely of fragments of rock derived from the island and spread out round its western shore.

The succeeding deposit, the equivalent of the Tarannon Shales, is much more shaly and marks the still greater recession of the coast-line—in other words the greater submergence of the land-area. During the Wenlock Epoch a sea, studded with coral-reefs, and teeming with hydrozoans, crustaceans, cephalopods, gastropods, echinoderms, pelecypods, and brachiopods, spread over Herefordshire. The earliest known fossils that can be referred with certainty to plants occur in Silurian rocks, and towards the close of the period the graptolites died out and fish made their appearance.

In Herefordshire, owing to the great break at the base of the May Hill Sandstone, between it and the underlying *Dictyonema* Shales, the lower limit of the Silurian System in this county is well defined. But such is not the

case with the upper.

In Murchison's original classification the lowest division of the succeeding Old Red or Devonian System was called the Tilestone. Later he divided this into two parts—a lower, the Downton Castle Sandstone, and an upper, to which he restricted the term 'Tilestone. The Downton Castle Sandstone, as the result of additional work and criticism on the part of others, he grouped with the Silurian, regarding the Tilestone (sensu stricto) as the basal division of the Old Red. The Downton Castle Sandstone he termed the 'Passage-Beds.' Certain other geologists, however, held that the Tilestones (sensu stricto) were equally 'Passage-Beds,' and therefore grouped both Downton Castle Sandstone and Tilestone under this denomination.

In the Ledbury district the Tilestone of Murchison, or the Temeside Shales of present nomenclature, were called by J. W. Salter the 'Ledbury Shales,' and were grouped by Sir Charles Lyell with the Old Red Sandstone—a view in accordance with Murchison's. But Symonds was always opposed to this classification, holding that in addition to the palaeontological evidence prohibiting such a conclusion, he had found clear indications of a break between the Silurian and the Old Red Sandstone. His contemporary, however, G. H. Piper, who spent much time investigating the railway-cutting near his home at Ledbury, thought that the 'Passage-Beds' partook much more of the nature of the Old Red Sandstone than of the Silurian.

The most recent work in the Ludlow district has confirmed the view held by Symonds, and a layer with plant-remains, called the 'Fragment-Bed' is regarded as the top bed of the Silurian.

The fact that the earlier geologists felt compelled to recognize 'Passage-Beds' is clear proof of the very gradual transition, as regards lithic structure, from the Silurian into the Old Red.

In Herefordshire the Silurian is that system of deposits which intervenes between the *Dictyonema* Shales and the Fragment-Bed, and has that bed for its top stratum.

Of late years in particular it has become recognized that the correlation of beds of different areas can only be satisfactorily accomplished by paying minute attention to the fossils. In the Ordovician and Silurian rocks, as

high as the Mocktree Shales, graptolites have been chosen for zonal purposes, and since their selection rapid progress has been made in the work of zoning and correlation. These fossils are best preserved in shale-deposits, and therefore it has been chiefly in districts where such a development obtains that the zonal work has been the most actively prosecuted. In Herefordshire, however, portions of the shale-series are replaced by limestones, in which, from experience, it has been found that graptolite-remains are less frequent. Therefore some difficulty may be anticipated in forwarding this most interesting piece of zonal work in the classic districts of Woolhope, May Hill, and the neighbourhood of the Malverns.

Silurian rocks occur in this county in six separate areas—on the north-west between Ludlow and Huntington; on the east, in the Malvern country and around Aston Ingham (part of the May Hill area), and as inliers at

Woolhope, Hagley, and Shucknall Hill.

It is now many years since the Government Geological Survey maps of Herefordshire were made. At that time the upper limit of the Silurian was not taken so high up as the 'Fragment-Bed.' Consequently the Silurian rocks occupy a greater area than they are represented to do on the maps, and as that accompanying this essay is based upon them, it follows that on this too their geographical extent is under-represented.

#### LOCAL DETAILS

Ludlow-Huntington District.—In a general way this Silurian tract resembles that of Woolhope, for the rocks occupy a roughly pear-shaped area. It is not so symmetrical, however, neither do Old Red rocks surround it. They occur along the south-eastern side and are faulted against the Silurian for a space on the north, but the western boundary of the district is a fault—a continuation of that which plays so important a part in the structure of the Church Stretton district.

The Silurian Beds, from the May Hill Sandstone to the Temeside Stage, are present in the area, but the Sandstone is only seen in the small section at Pedwardine, and the soft Wenlock Shales—although they floor the Wigmore Valley—are rarely exposed. This is in the main due to the valley-bottom being strewn with Superficial Deposits, but the Shales have been noticed in the bed of the Teme near Burrington.<sup>22</sup>

The Wenlock Limestone, being harder than the Wenlock Shales below and the Lower Ludlow Shales above, forms an ill-defined ridge around the lowlands of the Wigmore Valley, and has been quarried and exposed in lanes

in several places.

The Lower Ludlow Shales, as the name implies, are essentially a shale formation, but near the top, a little below the Aymestrey Limestone, are somewhat flaggy beds, locally called 'Pendles.' The Church Quarry at Leintwardine is in these top beds, 28 and therefrom—as early as the year 1857—no less than ten species of star-fish had been procured. 24 It was here that A. Marston worked with so much success, as the slabs, covered with

<sup>&</sup>lt;sup>22</sup> Proc. Geol. Assoc. iii (1873), p. 125.

<sup>23</sup> Ibid. xviii (1904), p. 491.

<sup>24</sup> Ann. & Mag. Nat. Hist. (2nd ser.), xx (1857), p. 321: see also H. Woodward, Quart. Journ. Geol. Soc. xxi (1865), p. 490.

Palaeocoma Marstoni, testify, and where J. E. Lee obtained the earliest known fish, Scaphaspis ludensis.25 Here also have been obtained specimens of Pterygotus, Eurypterus, Hemiaspis, and Necrogammurus, and as recently as 1904 several well-preserved star-fishes were obtained, besides plates of Dithyrocaris, large Orthoceratites and various common fossils.

Near Kington the Lower Ludlow Shales are exposed in Bradnor Wood, but by far the most important section in the Herefordshire portion of the

Ludlow district is at Elton Lane, near Ludlow.

While Miss E. M. R. Wood has exhaustively dealt with 'The Lower Ludlow Formation and its Graptolite Fauna' in the Ludlow and contiguous districts,26 Miss G. L. Elles and Miss S. I. Slater have written no less exhaustively on 'The Highest Silurian Rocks of the Ludlow District,' 27 that is on the Aymestrey, Upper Ludlow, and Temeside Stages. Graptolites occur more or less abundantly in the Ludlow rocks as high as the Mocktree Shales, and these authoresses have used these fossils as much as possible for zonal purposes with very satisfactory results.

The Aymestrey Limestone derives its name from the village of Aymestrey, in the neighbourhood of which there are many quarries in the Limestone. It was here that the Rev. T. T. Lewis lived—the geologist who Murchison acknowledged had materially assisted him in establishing the Silurian System.

In the northern portion of the district the Aymestrey Limestone has been worked in Wassell Wood and in 'The Old Road,' near Leintwardine, and near 'The Briery.' At the latter place there is seen in the quarry, in addition to an interesting fault, an example of what is called 'pene-contemporaneous erosion'—the top portion of the Aymestrey Limestone seems to have undergone a certain amount of erosion almost as soon as it had been formed. phenomenon was first described by R. Lightbody.<sup>28</sup>

In the banks of the Teme between Downton and Downton Castle Bridge the complete succession of the Silurian Beds from the Aymestrey Limestone to Downton Castle Sandstones is magnificently displayed. The beds which come immediately below the Downton Castle Sandstones, the Upper Whitecliffe or Chonetes Flags form the core of the Downton Castle inlier, and are there succeeded by the Temeside Stage.

The Upper Ludlow Stage is perhaps best known for its 'Bone-Bed,' which constitutes its highest bed. The 'Bone-Bed,' of which an excellent general account has been given by Dr. G. J. Hinde,29 is seen in the road leading down to Forge Bridge, near Downton Castle, and at other places in the neighbourhood; while at the southern end of the district under consideration it is exposed at Bradnor Hill, near Kington.80 In the latter neighbourhood, near Quarry House, graptolites have been obtained from the Mocktree Shales.81

The term 'Temeside Group' has only recently been suggested. It is used in the same sense as the term 'Passage-Beds' is employed by many

<sup>25</sup> Salter, Ann. & Mag. Nat. Hist. (3rd Ser.), iv (1859), p. 45; Lee, Note-book of an Amateur Geologist (1881), p. 46.

Real Soc. lvi (1900), pp. 415-91.

<sup>&</sup>lt;sup>27</sup> Ibid. lxii (1906), pp. 195–250. <sup>29</sup> Proc. Geol. Assoc. xviii (1904), pp. 443–6.

<sup>&</sup>lt;sup>28</sup> Ibid. xix (1863), pp. 368-71.

<sup>29</sup> Proc. Geol. Assoc. xviii (1904), pp. 443-6.

<sup>30</sup> Quart. Journ. Geol. Soc. xii (1856), p. 94.

<sup>31</sup> Proc. Geol. Assoc. xviii (1904), p. 487. See Murchison, Silurian System; Siluria; Quart. Journ. Geol. Soc. ix (1853), p. 16; ibid. xiii (1857), p. 290; Marston, Geol. Mag. vii (1869), p. 253; J. Harley, Quart. Journ. Geol. Soc. xviii (1861), p. 542; ibid. Rev. P. B. Brodie, ibid. xxv (1869), p. 236.

authors—including the Downton Castle Sandstone and Temeside (or Ledbury) The most interesting bed, besides being the most important, is the Downton Bone-Bed, or if it be called after its characteristic gastropod, the Platyschisma-helicites Bed.

For many years it was not realized that the *Platyschisma* Bed passes laterally into a 'bone-bed,' but such appears to be the case, 82 and in one form or the other it extends over wide areas at a comparatively uniform distance of 3 ft. above the Upper Ludlow Bone-Bed. The Downton Bone-Bed is exposed in the roadside near Forge Bridge and near the cottage at the Old Millrace weir.

The Upper beds of Downton Castle Sandstone cap the cliff on the north bank of the Teme near Forge Bridge, but are more accessible in the quarries by the road-side and in Tin Mill Wood. In the Tin Mill Wood Quarry the bottom beds of the Temeside Shales are visible, and a little farther to the north-east, owing to the peculiar domical disposition of the strata, the higher beds are seen at a lower level in the cliff bordering the Old Millrace. Here the Olive Shales, representatives of which occur in the Woolhope district, can be studied.

The 'Transition-Beds,' or Temeside Beds, have been observed at Richard's Castle, Ashley Moor, near Orleton, Mortimer's Cross, Croft Bank, and at Bradnor Hill.

Richard Banks 83 studied these beds in the neighbourhood of Kington, and from the Bradnor Hill Quarry obtained Cyathaspis Banksi, and many species of Pterygotus and Eurypterus. At Ivy Chimney Quarry, also near Kington, the same geologist found the specimens of Pterygotus truncatus and P. Banksi that Huxley and Salter figured.

The Hereford county-boundary takes in about half the area of two outliers of Temeside Beds lying to the west of the great fault. The larger is situated to the north of Presteign and is said to consist of thin-bedded sandstones and deep red clayey marls inclined at a high angle and having a northnorth-east and south-south-west strike. The sandstone-beds have been worked in places. The small outlier, to the south of Presteign, is of similar formation.84

Malvern District.—Silurian rocks extend southwards from the Abberley Hills, along the western side of the Malvern Hills, to the neighbourhood of Eastnor, where their superficial extent has expanded.

Murchison was the first to give a clear account of the Silurian rocks of the Malvern district 35; but his essay was entirely eclipsed by that of Professor John Phillips, who contributed a most masterly account of this district on behalf of the Geological Survey.<sup>36</sup> Since then the beds have been studied by Symonds, Salter, and Professor Groom, and likewise by Dr. Grindrod, whose collections are widely known.

The May Hill Sandstone forms a conspicuous escarpment overlooking on the west the diversified tract where the Cambrian Shales and associated igneous rocks occur.

<sup>32</sup> Quart. Journ. Geol. Soc. lxii (1906), pp. 195-220.

Quart. Journ. Geol. Soc. IXII (1900), pp. 195-220.
 Îbid. xii (1856), pp. 93-100; Edin. New Phil. Journ. (1856), p. 240.
 Murchison, Silurian System (1839), pp. 191-2; Symonds, Records of the Rocks (1872), p. 217.
 Gilucian System (1839), pp. 410-14.
 Mem. Geol. Surv. ii pt. i (1848), pp. 57-101.

Phillips made two divisions of the May Hill Beds—a lower, in which conglomerates and thick-bedded sandstones predominate; and an upper, in which shale-beds are more in evidence. The conglomerates at Howler's Heath contain rolled fragments of Malvernian rocks, and the upper beds have yielded specimens of Stricklandinia and Pentamerus. The upper beds have been observed at Wain Street, Stump's Wood, and below the Obelisk in Eastnor Park, where at certain horizons they are very fossiliferous, and it was here that the oldest known Pterygotus was found. North of the Obelisk the outcrop of the May Hill Beds is not very distinct; but they have been noticed at several places, and it was near the Wyche that Miss Phillips found the peculiar conglomerate containing May Hill Sandstone fossils that bears her name. In the Cradley district—although the beds are very much disturbed—the sequence of the upper strata is more complete than farther south. Near Cowleigh Park small patches of Archaean rocks occur, introduced by faulting and folding into the main mass of the Llandovery Beds.

The Woolhope Limestone is well-developed in the Malvern country and usually forms the steep slope down to the little valleys excavated in the overlying Wenlock Shales. Usually it is inclined in a westerly direction, but near Walm's Well it dips eastwards. This is because the rock exposed is a remnant of the eastern limb of one of those over-folds such as we have said were produced in the crust-crumpling that took place in late Carboniferous times.

On the west side of the Cradley district the limestone crops out along a fairly regular line, but on the east it occurs only in two small outliers, in one of which it has been worked. The Woolhope Limestone is a useful road-metal, and has been quarried at Gold Hill and Stump's Wood in the Eastnor area.

The Wenlock Shales, being soft, are worn into valleys overlooked by well-defined ridges of Wenlock Limestone. The Glynch Brook, from its source at Walm's Well to the confines of the Silurian area at Clincher's Mill, follows the outcrop of these Shales, and the ornamental sheet of water at Eastnor Castle lies in a hollow excavated out of them. Being a shale-formation the beds are of little or no commercial value, and therefore rarely exposed except in lane-sides and natural sections. There is a section at Linden, however, where a number of fossils have been found.<sup>40</sup>

The Wenlock Limestone is represented either by several massive beds of limestone, or by one bed with deposits of nodules, embedded in shale, above and below. Commercially, the limestone is of much importance, and therefore there are many quarries. In the large one on the hill above the tunnel at Ledbury, two thin beds—together measuring only 18 in.—have furnished limestone that takes a high polish and has in consequence been locally employed as an ornamental stone, and designated 'Ledbury Marble.' Fossils are abundant throughout the subdivision, and there are few amongst the numerous quarries that have been opened near Ledbury, Netherton, in Colwall Copse, and in the Cradley district, whose strata do not abound in corals and brachiopods. When the railway between Ledbury and Malvern

<sup>37</sup> See Symonds in Woodward's Monogr. Brit. Fossil Crustacea, Order Merostomata (Pal. Soc.), p. 92.

<sup>38</sup> T. T. Groom, Quart. Journ. Geol. Soc. lv (1899), pp. 139, 143-5, 153.
39 Mem. Geol. Surv. ii, pt. i (1848), pp. 156-63.
40 Quart. Journ. Geol. Soc. lvi (1900), pp. 147-8.

was constructed many trilobites were obtained, but now they are much less frequently recorded from the neighbourhood.

The Lower Ludlow Shales closely resemble their equivalents in the Ludlow-Huntington district. Limestone-nodules occur here and there in the lower portion, and flaggy beds—the 'Pendles' of the Ludlow-Huntington district—in the upper; but except in lanes the beds are not often seen. On the western slope of Eastnor Hill they were once worked for brick-making; but both this section and the one by the roadside to the south of Eastnor village that yielded many fossils are quite overgrown. Beds, about the middle of the subdivision, are seen between Brock Hill and Colwall Copse.

The Aymestrey Limestone is about the same thickness as in Shropshire, but less pure, and instead of Conchidium Knighti being the characteristic fossil its place is taken by Sieberella galeata. Being harder than the shales with which it is interstratified this limestone forms hillocks, which, owing to the flexuring the beds have undergone, are of various shapes, and very irregularly distributed. At the present time the best and most fossiliferous section is that by the roadside at Chance's Pitch, to the north of Netherton, where as at Evendine, in the same neighbourhood—Leptaena depressa is common. The beds are well developed in the Cradley district at Hale's End. Wilsonia Wilsoni is very common in this section along a horizon in the shales which immediately overlie the Aymestrey Limestone, and which Phillips called ' Passage-Beds.'

The Upper Ludlow Shales occupy a considerable area to the west of Although essentially a shale-formation the deposit becomes increasingly arenaceous and of a littoral facies as it is traced upwards into the Temeside Stage. There are many sections, particularly in the lanes which traverse the usually steep hill-sides which mark the junction of the Silurian and Old Red Systems, as near Frith Farm, Combe Hill, Barton Court, and in the Cradley district at Hale's End, where the complete succession from the Lower Ludlow to the Old Red has been observed.

In the Malvern district the Temeside Beds much resemble their equivalents in the district between Ludlow and Huntington. The Downton Castle Sandstone appears to vary in thickness from 10 to 100 ft., and the overlying Temeside Shales are also subject to much variation. The beds can be studied at the same localities as the Upper Ludlow Shales, but of course not necessarily in their entirety. The two best sections, however, are those at Ledburyin the cutting leading to the tunnel-and at Brock Hill about half-a-mile to the north of Colwall Station.

In the cutting at Ledbury many fish-remains have been found from time to time.

Symonds published a detailed account of the strata exposed when the railway-cutting was made in 1860.42 He assigned a thickness of 9 ft. to the Downton Sandstone, and of 272 ft. to the Ledbury Shales. The latter division comprises grey, red, and purple marls, and bands of grit, abounding in fish-remains at certain horizons, and the little brachiopod Lingula. remains of fish belonged chiefly to the genus Auchenaspis.43

<sup>&</sup>lt;sup>41</sup> Symonds, 'Old Stones' (1884), p. 75.
<sup>42</sup> Quart. Journ. Geol. Soc. xvi (1860), p. 193; Edin. New Phil. Journ. 1859, p. 232.
<sup>43</sup> Trans. Woolhope Nat. F. C. 1883 (1890), pp. 17-18; ibid. 1884 (1890), pp. 136-8; ibid. 1895-7 (1898), pp. 310-13.

The other section, that at Brock Hill, is interesting mainly on account of the occurrence of the Ludlow Bone-Bed. Phillips, although he gave a detailed account of the exposure, failed to identify this bed, and it remained for the Rev. F. Dyson to record the discovery.44 J. W. Salter then visited the locality, and from the notes which he took and published,45 it is very easy to see that these top beds of the Silurian are very similar to their equivalents near Ludlow. Above the Upper Ludlow Bone-Bed—'a series of calcareous nodules, filled with the before-named species [of shells, etc.] and bearing on its surface coprolitic masses and nodules '-are flaggy Downton Castle Sandstone beds with Platyschisma belicites; succeeded by more massive-bedded sandstones; which in turn are overlaid by the Temeside Shales.

Salter extended his researches into the Cradley district, and detected the Ludlow Bone-Bed cropping out in the hill-side behind Hale's End Farm.

Woolhope District. The Woolhope district is 10½ miles long and 4½ miles broad. Its genesis, as due to the rocks bulging upwards in order to obtain relief from crust-pressure, has already been mentioned, but in this connexion attention may be drawn to the diagrams by the Rev. R. Dixon, which show very clearly that the stronger force was that acting from an easterly direction.46

After the uplift of the district the top of the dome was removed, and the Silurian rocks, with their hard bands interstratified in soft shales, were laid bare.47 It was from such a surface as this, one of very diverse stratal composition, that denudation—by means of its differential action—carved out the succession of valleys and ridges which rise one above another and encircle, with but few interruptions, the Woolhope 'Valley of Elevation,' as Murchison called it, forming a vast natural amphitheatre, which compels admiration when looked down upon from such a vantage ground as Adam's Rocks, near Dormington.

Denudation has removed whatever Carboniferous Beds were originally deposited over the area previous to the time of crust-crumpling and the Old Red Sandstone, and from out the centre of the dome has scooped all the Silurian Beds down to the May Hill Sandstone, which now forms the rolling, wooded ground, visible from Adam's Rocks in a south-south-easterly direction.

Since the publication of Murchison's Silurian System, wherein the remarkable physical features are so clearly outlined and the succession of the rocks so briefly, although so clearly, sketched, many geologists have visited the tract, but few with any ulterior object than to become generally acquainted with so classic a neighbourhood.

Phillips described the district on behalf of the Geological Survey, noting very carefully the geographical distribution of the beds, the directions in which they are inclined, and the faults by which they are affected, only one of which, however, is indicated on the Survey map. The Rev. R. Dixon contributed some notes, useful as pointing out the best places for studying the various rock-divisions and for collecting fossils; while he prefaced his remarks with some observations on the tectonics of the district. G. H. Piper has

<sup>&</sup>lt;sup>44</sup> Edin. New Phil. Journ. 1856, p, 172. <sup>45</sup> Trans. Malvern Nat. F. C. pt. 2 (1853-70), pp. 9-12. <sup>46</sup> Trans. Woolhope Nat. F. C. 1867 (1868), p. 174; see also T. Mellard Reade, Proc. Cotteswold Nat. F. C. xiv, pt. 3 (1903), pp. 258-9.

47 See C. Callaway, Proc. Cotteswold Nat. F. C. xiv, pp. 257-8.

written—but in a more general way—on the same subject; <sup>48</sup> while the Rev. P. B. Brodie, in addition to publishing a paper mentioning the characteristic fossils of the Silurian rocks of the district, <sup>49</sup> has dealt with, in considerable detail, those beds which are now grouped together as the Temeside Stage.

The May Hill Sandstone is of the usual character in this district, but except in the sides of the lanes in the Haugh Wood and when excavations are made for draining or building purposes, is rarely seen. A few fossils have been obtained from loose blocks on the hill-side above Scutterdine Wood, and it was near here—on the south side of the Mordiford fault at Mangerdine—that its strata were pierced in a futile search for coal.

In the Woolhope district the Woolhope Limestone is a very important rock, being much used for road-metal not only within the valley itself, but in the surrounding lowland. Quarries are numerous, but the best-known are those at Scar Hill, Woolhope, and Scutterdine, near Mordiford. That at Scutterdine yields many fossils, including *Homalonotus delphinocephalus* and *Illaenus barriensis*; <sup>50</sup> while the *Actinoceras baccatum*, described by Dr. Henry Woodward, probably came from the same place. <sup>51</sup> Graptolites are said to have been procured from this rock in this neighbourhood, but they are certainly not numerous. <sup>52</sup>

The Woolhope Limestone environs—except where cut out by the Mordiford fault—the May Hill Sandstone inlier of the Haugh Wood, and forms the slope that leads down to the level expanse where the soft Wenlock

Shales prevail.

This level stretch is easily descried from Adam's Rocks, bounded on the north-east by the mural ridge formed by the outcrop of the Wenlock Limestone. The escarpment of this rock is notched with incipient valleys called 'Cockshoots' in these parts, but otherwise extends more or less uninterruptedly around the Woolhope Valley. The white rock visible through the trees to the east-north-east of Adam's Rocks shows where the once actively worked and, to the fossil collector, far-famed Dormington Quarries are situated. Weathered corals, for example, *Halysites catenularia* and *Favosites gothlandicus*, and many brachiopods, however, may even now be picked up on the old spoil-heaps.

Canwood, Winslow Mill, Hyde, Lindels, and Common Hill above Fownhope, are localities where there are sections of the Limestone. The beds at Hyde are particularly fossiliferous; but from a tectonic standpoint the section at Lindels is the most interesting, because there the section cuts across the place where the ridges of Limestone conjoin, so that an anticlinal fold is seen. Unfortunately faults somewhat complicate the ground. As in the Malvern district, so here, the Wenlock Limestone is frequently coarsely oolitic, and often the nuclei of the oolite granules can be seen without the

aid of a lens.

The Lower Ludlow Shales require little comment, being similar to their equivalents in the Ludlow, Huntington, and Malvern districts. The beds are seldom exposed except in lanes; but from exposures on the hill-side

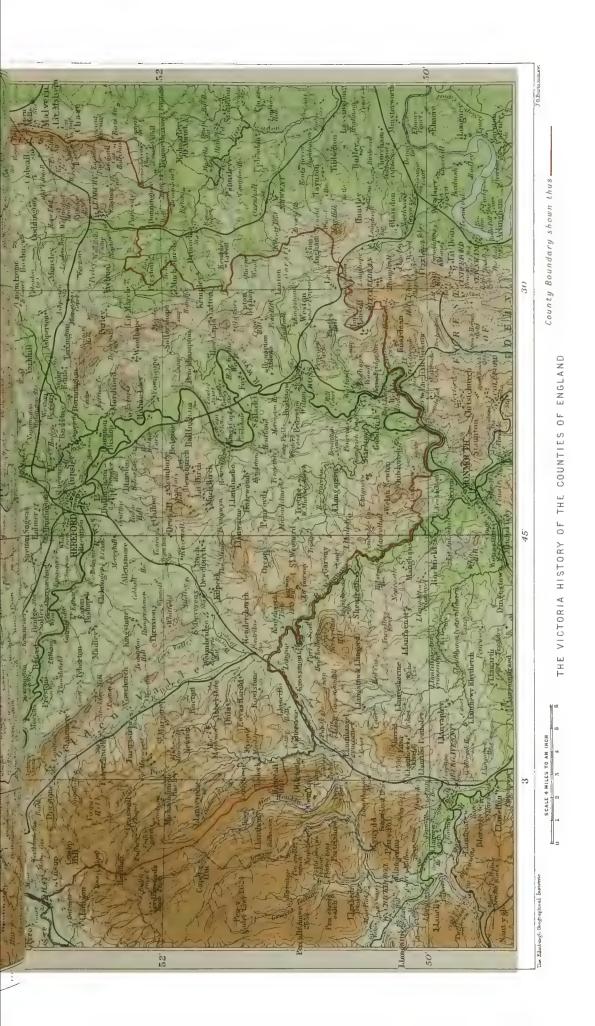
<sup>51</sup> Geol. Mag. 1868.

<sup>48</sup> Trans. Woolhope Nat. F. C. 1891, p. 164.

Ibid. 1891 (1894), p. 160.
 Trans. Woolhope Nat. F. C. 1852, p. 18.

<sup>49</sup> Ibid. 1868 (1869), pp. 144-7.





between Adam's Rocks and the Dormington Quarries graptolites have been recorded.

The Aymestrey Limestone is the rock that forms the great natural boundary of the Woolhope 'Valley of Elevation.' As might be expected, sections are numerous, but that at Adam's Rock is as satisfactory as any. The Rocks themselves are of this Limestone, and from the débris at their foot many of the characteristic fossils may be collected.

The Aymestrey Limestone then forms the rim, so to speak, of the valley. The outer slope, leading down to the undulating expanse of Old Red Sandstone, is formed by the succeeding Upper Ludlow Shales and Temeside Beds.

The Upper Ludlow Shales are exposed in the lanes in many places, as at Old Sufton, Prior's Court, Dormington, Perton Lane, Durlow (or Durley) Common, Bodenham, Gamage Ford, Yatton Farm, and elsewhere. sections at Gamage Ford and Durlow Common are the best. In the lane at the former place the Upper Ludlow Shales are very fossiliferous, and it was from the Bone-Bed at their top that the Rev. H. Stone first procured those peculiar seed-like bodies to which Sir Joseph Hooker gave the name of Pachytheca.58 Graptolites were obtained by Phillips from the top beds of the Yatton Farm Quarry, and from the bottom beds Dayia navicula. The Durlow Common section is in the lane leading from the common up the hill past 'Hazle.' Here there are some blue flaggy limestones, which have been quarried, intercalated in the shales. The beds above contain layers of unctuous clay, called locally 'Walker's Soap,' and it is this material that occasions the frequent landslips of the neighbourhood, the most notable of which was the one that occurred near Putley, and which was called 'The Wonder Landslip.' Descriptive and awe-inspiring indeed are the accounts furnished by some of the writers of earlier times.

The Temeside Beds environ the area represented as Silurian on the map. The exposures are principally along the north-west and north-east sides of the inlier, as Superficial Deposits obscure much of the ground along the south-western.

The Rev. P. B. Brodie <sup>54</sup> has given much information concerning the distribution of these 'Passage-Beds.' In his time the principal section was at Perton. Here in a quarry at the foot of Perton Lane the Downton Castle Sandstone and Temeside Shales were exposed. The latter Brodie designated 'Olive Shales,' and obtained from them a number of species of Eurypterus, including a new one that was named by Dr. Henry Woodward Eurypterus Brodiei, <sup>55</sup> and a specimen of Pterygotus Banksi. Capping the section were sandstone-beds containing Pachytheca and other plant-remains, which occupy the same stratigraphical position as the Fragment-Bed of the Ludlow district. These top beds of sandstone have been noticed near Tarrington, between Tarrington and Lower Marcle and at 'Hillfoot,' where the 'Olive Shales' were observed beneath them. The Temeside Beds have also been seen at Putley Common, Putley, Chandler's Farm, in the lane between Lynedown and Gamage Ford, and near Welsh Court Farm. <sup>56</sup> The yellow Downton

<sup>53</sup> Quart. Journ. Geol. Soc. ix (1853), p. 12; see also Proc. Geol. Assoc. xviii (1904), pp. 458-9.

<sup>54</sup> Trans. Woolhope Nat. F.C. 1870 (1871), pp. 273-9; Quart. Journ. Geol. Soc. xxv (1869), pp. 235-7.
55 Rep. Brit. Assoc. Liverpool, 1870, p. 91; Quart. Journ. Geol. Soc. xxvii (1871), p. 261; Trans. Woolh.pe
Nat. F.C. 1870 (1871), pp. 276-7.
66 Mem. Geol. Surv. i (1846), p. 37.

Sandstones have been extensively worked on Gorsley Common; but then they dip down and, as far as we know at present, disappear beneath the Old Red Sandstone.

May Hill District.—Only a portion of this district is in Herefordshire, that around Aston Ingham. All the Silurian rocks, from the May Hill Sandstone to the Temeside Beds, are present, but as they resemble their equivalents in the Malvern and Woolhope districts it is unnecessary to go into details. It may be mentioned, however, that since the days of Murchison and Phillips this district has received little or no attention.

Hagley Inlier.—The occurrence of the highest Silurian Beds at this locality was first noted by J. Scobie, the first honorary secretary of the Woolhope Naturalists' Field Club. H. E. Strickland described the beds in detail,<sup>57</sup> and Symonds has also contributed remarks. The large quarry in which the succession was first made out is overgrown, but at the base were the Upper Ludlow Shales from which Scobie obtained the Pterygotus problematicus described by Salter; then came the Upper Ludlow Bone-Bed, full of fish-remains, succeeded by the Downton Castle Sandstone, according to Symonds, 6 ft. 6 in. thick; and lastly the Ledbury Shales, of which there was seen a thickness of 4 ft.

Shucknall Hill.—Murchison 58 and Phillips 59 have both described this The Aymestrey Limestone is the rock most in evidence and has been extensively quarried; but the Upper Ludlow Shales are also exposed and, according to Murchison, were worked at one time for 'Walker's Soap.'

#### DEVONIAN SYSTEM

The Old Red Sandstone is the rock-formation which extends over by far the greater part of the county. It gives rise to ground of a rich red colour, and the change in tint from these tracts to those where the pale-coloured Silurian rocks prevail is most noticeable. Correlated with this change in the rocks of a district is a certain amount of variation in the flora.

Murchison 60 was the first properly to investigate the Old Red Sandstone of Herefordshire and remarked that there was no better exhibition in England and Wales of this great series of red rocks, 'so clearly intercalated between the Silurian and the Carboniferous,' than in the Black Mountains and the Fans of Brecknockshire and Carmarthenshire.

The precise thickness of the Old Red Sandstone in Herefordshire is not known. Murchison estimated it at between 9,000 and 10,000 ft. That was when the Tilestone was included. Phillips placed its maximum at 8,000 ft. and other authors at thicknesses varying between 3,200 and 6,500 ft. Since in Shropshire to the north the Old Red measures about 3,700 ft., and at Abergavenny to the south, 4,200 ft., in the intervening tract the mean of these two numbers, namely, 3,950 ft., might reasonably be expected for its average thickness.

<sup>&</sup>lt;sup>57</sup> Quart. Journ. Geol. Soc. viii (1852), p. 381; see also ibid. ix (1853), p. 8; Trans. Woolhope Nat. F.C. 1870 (1871), pp. 167-72.

<sup>68</sup> Silurian System (1839), p. 435.

<sup>59</sup> Mem. Geol. Surv. ii, pt. i (1848), pp. 179-80.

Murchison made three divisions of the Old Red Sandstone in Herefordshire, in ascending order, Tilestone, Cornstone and Marl, and Quartzose Conglomerate and Sandstone. The Tilestone, as has been pointed out, is now classed with the Silurian. Of the two remaining divisions Symonds for made three, separating the 'Cornstone and Marl' into Brownstones (upper part) and Cornstones (lower part). In some of his essays Symonds grouped as Brownstones only the strata which merited the designation by virtue of their colour; but in others he classed therewith certain cornstone-bands. In yet another of his communications he called these cornstones the 'Upper Cornstones,' to distinguish them from the Lower Cornstones, which, together with the underlying *Pteraspis* Beds, made up his Lower Division of the Old Red.

Symonds was inclined to parallel the Brownstones proper with the richly fossiliferous Osteolepis Beds of Scotland—the Middle Devonian of Murchison. He admitted, however, that the Brownstones had yielded no fossils of correlation value, and that it was mainly from the test of stratigraphical position that he suggested their probable contemporaneity.

In most parts of the world where Old Red rocks or their equivalents occur, it has been found that they will admit of a dual division—a lower, characterized by such fish as *Pteraspis*, *Cephalaspis* and *Phlyctoenaspis*, and an Upper, characterized by *Holoptychius*, *Sauripterus*, *Bothriolepis* and *Asterolepis*. In this county a similar division may be made, and scanty as are the remains of *Pteraspis* and *Cephalaspis* that have been found in the Brownstones, they are sufficient to show that the beds in which they occur belong to the Lower and not to the Upper Division.

In Scotland between the Upper and Lower Divisions is a marked break, but no such non-sequence has yet been discovered in Herefordshire or in the neighbouring county of Monmouthshire during the later geological survey. Symonds, however, held that he had evidence of a break between the top beds of the Cornstone Series and the succeeding beds of the Brownstones, for the latter 'overlap the Rowlstone Beds [the top division of the Cornstone Series] both on the Scyrrid and the Sugar-Loaf.' Confirmatory evidence of this is required.

In 1840 Murchison and Sedgwick published the term 'Devonian' for certain truly marine beds which occur in South Devon, and paralleled them with the very dissimilar Old Red Sandstone of Herefordshire. There is no doubt about their contemporaneity; but while it is well known under what conditions the rocks of South Devon were formed, this is not the case with regard to their equivalents in Herefordshire. Dr. J. Fleming suggested a lacustrine origin, and Godwin Austen, basing his conclusions on the fact that the Old Red fish resemble in many respects those of the American lakes of the present day, also advocated a lacustrine origin—a view that was upheld by Sir Andrew Ramsay and later by Sir Archibald Geikie. The late Robert Etheridge and the Rev. La Touche held that, whatever were the conditions of deposition, the two areas of sedimentation were quite distinct—the Devonian of Devon was laid down in one hydrographic area, the Old Red of Herefordshire in another. In 1904 Dr. A. Smith Woodward 62

<sup>61</sup> Records of the Rocks (1872), p. 212; see also for a good general description, Old Stones (ed. 2), pp. 91-115; and Edin. New Phil. Journ. 1859, p. 232.

quoted Geikie's view of the genesis of the Old Red Sandstone of this county in a 'Welsh Lake.' Symonds was opposed to the 'lake-theory,' and so are Professor E. Hull 63 and Mr. A. J. Jukes-Browne. 64 As the last geologist remarks, if the two areas of sedimentation were separated, it must have been by a barrier, and such being the case some evidence should remain of that barrier. But as far as is known at present there is not. G. H. Piper apparently believed in its accumulation in a bay and, although the question is admittedly an open one, this seems very probable.

Of recent years little or no serious work has been accomplished in connexion with the Old Red Sandstone of this county; but thanks to the pioneer work of Murchison, supplemented by many local details collected by Dr. Lloyd, who was apparently the first to find fish-remains in these strata, Salwey, Lightbody, Dr. D. M. McCullough, the Rev. T. T. Lewis and W. S. Symonds, R. Banks, G. H. Piper, Henry Brooks of Ledbury, and others; and to Dr. Henry Woodward, 65 Professor Ray Lankester and J. Powie, 66 J. W. Salter, and Dr. H. Traquair, 66 who have figured and described many of the fish- and crustacean- remains, the fauna is fairly well known.

The Herefordshire Old Red may be divided then, as in other regions, into two parts, an Upper and a Lower. For descriptive purposes the Lower Division may be separated into Brownstones and Cornstones, the latter embracing, in ascending order, the Pteraspis Beds, Lower Cornstones, and Rowlstone Beds.

Lower Division.—It is beds belonging to this division and to the Cornstone-Stage portion that constitute the rock-floor of by far the greater part of Herefordshire. They extend from the foot of the lofty Black Mountains and the hills of the north-western fringe of the Forest of Dean, northwards, occupying a wide extent of country in the southern portion of the county and environing the Silurian inliers of Woolhope, Hagley, and Shucknall Hill; but become more restricted in extent in the northern, where rocks of greater antiquity rise up from beneath them on the east in the Malvern district and on the north-west in the Ludlow-Huntington district.

The Pteraspis Beds are sandstones. Although doubtless having a considerable superficial extent they have only been satisfactorily identified in the neighbourhood of Pontrilas, where they were exposed in a quarry and in the tunnel near the station, at Leyster's Pole or 'Sprowle,' and around At the last two localities many fish-remains have been Puddlestone. obtained.

The Lower Cornstones crop out in the lower slopes of the Black

Mountains and cap Ewyas Harold Common.

The rocks to which the term 'cornstones' is applied are impure lime-Sometimes they are present as massive beds, furnishing blocks many tons in weight, and at others as nodules so small as to be suitable for working for gravel. In the days of Murchison the cornstones were burnt for lime, and he records that there was scarcely any part of the central districts where limekilns were not numerous. From an analysis of thirteen specimens

Guart. Journ. Geol. Soc. xxxvi (1880), p. 270. Guart. Journ. Geol. Guart. Guart R. H. Traquair, pt. ii (in progress).

collected from all parts of the county it was found that the percentage of carbonate of lime varied from 38 to 88. Both De la Beche 67 and McCullough 68 thought that the cornstones were formed from carbonate

of lime deposited from a chemical solution.

The fish-remains in the Lower Cornstones of Ewyas Harold Common are usually only fragmentary, but a fine example of Eucephalaspis Agassizi, Lankester, has been obtained, and it was here that Dr. McCullough found the gigantic Pterygotus taurinus,69 which must have measured when perfect no less than seven feet. A peculiar fossil not infrequent here and in other parts is the Parka decipiens—the egg-packets of Pterygotus. Above the Lower Cornstones are the Rowlstone Beds, such as cap Rowlstone Hill. they were quarried near the church, and yielded the Stylonurus Symondsi,70 and the giant isopod, Praearcturus gigas.71

From certain 'red flaggy beds' associated with the Lower Cornstones in the Black Mountains between Hay and Cusop, Symonds obtained the largest known fish-spine from the Old Red. It was called Onchus major by Etheridge. On the hill above Cusop are beds, on about the same horizon as the Rowlstone Beds, so rich in plant-remains that they suggested a search for coal, but vestiges of the old workings on the eastern side of the ravine

above the village alone commemorate the fruitless attempt.

Cornstones and sandstones prevail in the Golden Valley district, and in the neighbourhood of St. Weonards. Cornstones are worked beyond Kilpeck, at Kentchurch, and on Orcop Hill, at all of which localities fishremains have been found. These hills, together with Saddlebow, are capped with the Rowlstone Beds.

In the neighbourhood of Ross, although sections are not infrequent, the Old Red Beds have received scant attention. Symonds said he searched all the quarries and railway-cuttings in the vicinity, but failed to find any traces of fossils.72 De la Beche has given a record of the succession of the beds between Howle Hill, near Hope Mansel, and Welsh Court, on the flanks of the Woolhope inlier near Yatton Chapel, placing the total thickness of the beds at 5,620 ft.73

The Old Red rocks around Hereford, Weobley, Leominster, Bromyard, and between Ledbury and the Woolhope inlier of Silurian Beds, all belong to the Lower Division. In most places denudation, effected principally by rain and rivers, has scooped out valleys and left intervening hills. These hills are generally formed of the Lower Cornstone, capped in many cases with sandstones (Rowlstone Beds) from which not infrequently the Brownstones have only recently, geologically speaking, been removed.

Hills composed mostly of cornstones rise up on all sides of the county Such are Dinmore, The Pyons, Aconbury, Dinedor, Tyberton, Moccas Hill, and Credenhill—the last being that bold wooded eminence which rises to the north of the Roman Magna Castra, the present Kenchester.

<sup>67</sup> Mem. Geol. Surv. i (1846), p. 52.
68 Trans. Woolhope Nat. F.C. 1868 (1869), pp. 8-11; ibid. 1869 (1870), p. 36.
69 Ibid. 1869 (1870), p. 38; Rep. Brit. Assoc. Norwich (1868), p. 78.
70 Edin. New Phil. Journ. vi (1857), p. 267; Quart. Journ. Geol. Soc. xv (1859), p. 230; ibid. xxi (1865), p. 426; Trans. Woolhope Nat. F.C. 1868 (1869), p. 239.
71 Quart. Journ. Geol. Soc. xxi (1865), p. 484; Trans. Woolhope Nat. F.C. 1870 (1871), pp. 266-70.
73 Flora of Herefordshire (1899), p. vii.

Hereford itself is built upon gravels, but below them are Old Red rocks which are low down even in the Lower Cornstones. At Lugwardine, sand-stones, on about the same horizon as those exposed in the cuttings on the Hereford and Shrewsbury Railway between the city and Dinmore, were once actively worked. From most of the localities mentioned above, some fish-remains have been procured, and, as long ago pointed out by Scobie, they are not nearly so rare as is generally supposed.

The Lower Cornstones, capped with beds paralleled by Symonds with the Rowlstone Beds, compose many of the picturesque hills, such as Lady Lift, Wormsley, and Robin Hood's Butts, in the vicinity of Weobley, the valley-bottoms in many cases being in lower beds than the Lower Cornstones.

The lowlands around Leominster are in the lower beds of the Lower Cornstones, from which many specimens of Eucephalaspis Agassizi have been obtained; while the hills which break the monotony of the lowland are formed of the higher beds of the Lower Cornstones, which have likewise yielded many fish-remains, for example, Zenaspis Salweyi, Z. Lloydi, and Pteraspis rostratus.

In the Bromyard district, where a similar configuration due to like causes obtains, fish-remains were formerly frequently found, but now most of the quarries are abandoned. It was in this neighbourhood that Salwey

obtained the Zenaspis which was called after him, Z. Salweyi.74

Beds belonging to the Lower Division of the Old Red occupy a considerable tract of country to the south of Bromyard, and masses of cornstone disconnected by denudation give rise to characteristic scenery. Rocks of the Cornstone Stage occur in a bay-like expanse around Colwall, and stretch southwards in a strait-like tract between Ledbury and the Woolhope inlier. Near Stifford's Bridge to the north of Cradley are certain sandstones that have been largely quarried for building-purposes in Malvern, which Symonds paralleled with his Rowlstone Beds. They have yielded few fish- or plant-remains; but some slightly lower beds in the same neighbourhood proved very fossiliferous, yielding to Mr. Gill many of the fish now in the Museums of Worcester and Malvern, and to Professor Ray Lankester the tail of a *Pteraspis* with scales attached.

The Brownstones comprise two divisions—an upper, consisting of a series of red marls overlying chocolate-coloured sandstones; and a lower, made up of reddish and grey sandstones, marls, and cornstones. In the aggregate they measure between 1,200 and 1,500 ft., but contain very few organic remains; indeed, from the Brownstones proper, fragments of *Pteraspis* 

and Cephalaspis are all that have been obtained.

The Brownstones are well developed in the Black Mountains, but, according to Symonds, in the hills of the Forest of Dean between the Great Doward and Mitcheldean, they have 'very much thinned out.' They were no doubt once continuous across the Ganerew district, but—together with the Upper Old Red Beds—have been removed by denudation.

The bottom beds of the cornstones, which are associated with the Brownstones proper, are seen at Cusop, near Hay, and Rowlstone, and from the former locality Symonds procured plates of a *Pteraspis* and an ichthy-

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<sup>&</sup>lt;sup>74</sup> See Symonds, Flora (1889), p. xviii; Records of the Rocks, pp. 218-19; Quart. Journ. Geol. Soc. xiii (1857), p. 283; ibid. xv (1859), p. 503; Rep. Brit. Assoc. 1864.

odorulite. The amount of lime present in these 'Upper Cornstones,' as Symonds called them, is often considerable, and water that has percolated through them on issuing forth frequently forms a deposit of travertine or Symonds records the occurrence of such a deposit near calcareous tufa. Chapel-le-fin.

Upper Division.—Two subdivisions of this series can be recognized (1) an upper, consisting of yellow, grey, and red sandstones with occasional bands of red shale, and (2) a lower, in which red marly beds, quartz-grits,

and conglomerates,75 predominate.

The beds which cap the edge of the Black Mountains and extend south-westwards for some distance, forming the surface of the uplands, are the grits and conglomerates. As might be expected the soil to which they give rise is very light, but nevertheless well suited for sheep-farming. higher beds come on farther back from the edge of the Black Mountains, and dip under the Carboniferous rocks of the great South Wales Coalfield.

For reasons which have been already outlined, beds belonging to this Upper Division are absent from the neighbourhood of Ganarew; but they appear again in the hills of the Forest of Dean to the south of Ross, where

the highest strata are exposed at several localities.

The lane which ascends the steep north-western slopes of the Great Doward, near Whitchurch, exposes the Conglomerate Beds, and pebbles of quartz and other rocks strew the surface of the ground. Higher up are poor exposures of the topmost strata, somewhat yellowish in colour. Owing to the dip, these beds are seen at the foot of the cliffs on the opposite side of the Wye below Symond's Yat. Similar beds have been observed at Howle Hill; but by far the best section, which has claimed the attention of De la Beche, Symonds, J. Jones and W. C. Lucy, 76 and Mr. E. B. Wethered, 77 is that in the deep cutting near the 'Hawthorns' on the road from Ross to Drybrook. Here the complete transition from beds which are unequivocally Devonian, into those which are with equal certainty Carboniferous, is admirably displayed.

The Bartestree Igneous Rock.—About three miles to the east of Hereford is a very interesting intrusion of igneous rock. It is the only igneous rock that pierces the Old Red Sandstone of Herefordshire, and on account of its hardness has been much quarried in the past. Now, however, the working is abandoned, and the quarry remains as a deep cutting marking out very clearly the direction of the intrusive mass, namely north-east and south-west.

Many writers have referred to the rock as a greenstone, 78 and La Touche 79 describes it as a diorite, but Professor S. H. Reynolds informs me that it is a The main mass is a dark, compact, rather fine-grained rock, in which crystals of augite can be detected with the naked eye. Under the microscope a slice of the rock exhibited phenocrysts of plagioclase, augite, and magnetite, in a fine-grained ground-mass, but there was no olivine. In

<sup>&</sup>lt;sup>75</sup> See H. C. Moore, *Trans. Woolhope Nat. F.C.* 1900, to April, 1902 (1903), pp. 227-8.
<sup>76</sup> Proc. Cottesevold Nat. F.C. iv (1866-8), pp. 175-93.

<sup>77</sup> Quart. Journ. Geol. Soc. xxxix (1883), pp. 211-16.
78 Phillips, Mem. Geol. Surv. ii, pt. i (1848), p. 180; H. E. Strickland, Quart. Journ. Geol. Soc. viii (1852), p. 384.

79 Quoted by G. H. Piper in Trans. Woolhope Nat. F.C. 1890-2, p. 166.

the marginal portion, however, which is much coarser grained, olivine was present.

The baked nature of the Lower Old Red marls—so well described by Murchison 80—shows that the intrusion occurred in post-Old Red times; but whether it was late Carboniferous or Tertiary cannot be ascertained.

#### CARBONIFEROUS SYSTEM

Rocks belonging to this important system occupy but a small area in this county, occurring in the extreme south-east. They are part of the northwestern fringe of the Forest of Dean Coalfield, and form the capping to the hills visible from Ross in a southerly and south-easterly direction.

Where the system is complete in the west of England, as for example in the neighbourhood of Bristol,81 it admits of the following subdivision on lithological grounds: Lower Limestone Shales, Mountain or Carboniferous Limestone, Upper Limestone Shales, Millstone Grit, Lower Coal Measures. Pennant Grit, and Upper Coal Measures. In a general way the same subdivisions can be recognized in the Forest of Dean district, but no Carboniferous Beds of later date than the bottom beds of the Lower Coal Measures are found in this county.

Previous to 1905 the attempts at correlating the Carboniferous rocks of various districts was largely based upon lithic structure; but as might be expected little real progress was made. Recently, Dr. A. Vaughan endeavoured to correlate the beds by means of their brachiopods and corals.82 Instead of attempting too minute a correlation, he selected genera for the zonalindexes, and 'gentes,' or 'aggregates of all the species which possess, in common, a large number of essential properties, and are continuously related in space or time.' He made five main zones, those characterized by (1) Dibunophyllum, (2) Seminula, (3) Syringothyris, (4) Zaphrentis, and (5) Cleistopora. He has given the term 'Avonian' to the Carboniferous Limestone Series of the South of England, and groups the first-two named zones as the 'Kidwellian,' and the other three as 'Clevedonian.' Dr. Vaughan himself visited many comparatively widely-separated areas to test the value of his proposals, and since then many other geologists have been able to interpret the true succession of the Carboniferous rocks of their districts, and to correlate the beds with their equivalents exposed in the cliffs of the gorge of the Avon at Clifton.

Dr. Vaughan visited some of the sections in the Herefordshire portion of the Forest of Dean district in order to compare the faunal succession with that at Bristol. He found that it was substantially the same, but the lithic characters of the rocks in the two districts were noticeably different. In the first place, the formation of limestone continued longer in the Bristol than in the Forest district, because in the former the Millstone Grit comes above the Dibunophyllum Zone, but in the latter—certainly the lowest beds of the 'Grit'are of pre-Dibunophyllum Zone date, belonging to the Upper Seminula Zone. Interstratified in dolomites, and also belonging to the Upper Seminula Zone, is

Silurian System (1839), pp. 185-6.
 Quart. Journ. Geol. Soc. lxi (1905), pp. 181-307 and pls. xxii-xxix. 81 Handbook Brit. Assoc. Bristol (1898), pp. 14-19.

#### **GEOLOGY**

the commercially important 'Whitehead Limestone,' and separated therefrom by more dolomites is the equally, if not more, important 'Crease Limestone.'

This latter is the chief repository of the iron-ore, which has been worked from time immemorial in the Forest district, as the numerous old workings, locally called 'scowles,' testify. Fossils are fairly common in the 'Crease Limestone,' and as the assemblage is similar to that of the Syringothyris Zone of the Bristol district, it is obvious that they must be on the same stratigraphical horizon. Fossiliferous limestones alternating with dolomites make up the deposits equivalent to the Zaphrentis and Cleistopora Zones of the Bristol district, and at their base are the beds which are characterized by the pelecypod Modiola lata and numerous ostracods.

Apart from Dr. Vaughan few geologists have given attention to the Carboniferous rocks of Herefordshire. The Great Doward is capped with Lower Limestone Shales to which, farther to the south-east, succeeds the Mountain Limestone. From the Limestone, Symonds collected several brachiopods, such as *Productus* and *Spirifer*, and fish-remains—teeth and spines; while the writer has procured from one of the actively-worked quarries a coral identified by Dr. Vaughan as *Michelinia* cf. favosa. It indicates the *Zaphrentis* Zone, and it is very interesting to note that while fish-remains occur here—for it was probably from these beds that Symonds obtained his specimens—precisely similar forms occur in the *Zaphrentis* Beds of the Avon section at Clifton, and in the Clee Hill area at Oreton. Associated with the limestone in the quarry from which the writer obtained the coral are some shale-beds with thin seams of very fine-grained grit, which on account of their having been crushed and used in the neighbourhood for cleaning purposes are called by the quarry-men 'Silver Sand.'

The district between Hope Mansel and the Wye sadly requires remapping from a geological standpoint. At Howle Hill there is a small outlier of the basement-beds of the Lower Coal Measures, containing a few seams of coal that have been worked in the past; and the locality is interesting because in ascending the hill a more or less complete succession of the beds from the Old Red Sandstone to the Coal Measures can be studied

The actual sections are not very good; but Symonds collected a considerable number of fossils from them. The late H. D. Hoskold furnished the most detailed account of the geology of the Howle Hill district that has appeared, but its value is somewhat destroyed by the greater part being obviously based upon the existing geological maps, which—as has been remarked—require revision.

Quarrying operations have been extensively carried on in the neighbourhood of Howle Hill and on the hill-top about a mile to the west of Mitcheldean. Most of the quarries are now abandoned, but from near Silverton Farm Mr. E. B. Wethered collected many fossils, principally from the Cleistopora Zone, and it was in this neighbourhood that Dr. Vaughan obtained the greater part of his information as to the local faunal and stratigraphical successions. Near here is the 'Deep Cutting,' which displays so well the transition from the Old Red into the Carboniferous System,

and from which a magnificent view is obtainable over the undulating lowlands.

To the botanist the district where the Carboniferous Limestone occurs is of interest because in it grow many plants not found in the Old Red low-lands, and the Great Doward is especially mentioned by Symonds as the habitat of several rare species.

Although the Carboniferous rocks occupy so small a part of the county at the present time, there seems to be little doubt that at one time they

extended over by far the greater portion.

Mr. A. J. Jukes-Browne, in his valuable and suggestive writings on historical geology, pictures the sea in which the Carboniferous Limestone was formed as analogous to the West Indian and Mexican seas of the present day. He pictures an island of irregular outline as occupying at that time a considerable portion of the Midlands; but his chart requires amendment. Certainly the Clee Hill area was connected with that of the Forest of Dean and Bristol, and such phenomena as obtained on the borders of Gloucestershire at Newent of the Coal Measures resting directly on the Old Red Sandstone may just as well be interpreted as pointing to the great amount of denudation that took place between the time of formation of the older and Upper Coal Measures of the Midlands, as to the presence of a land-surface while the missing Carboniferous rocks were being deposited elsewhere.

While limestone was still being deposited in the Bristol district changes were impending in the Clee Hill area, for there there are indications of gritty rocks at a comparatively early date in the Avonian Epoch. From the fact that the Millstone Grit facies sets in earlier in the Clee Hill area than in the Forest of Dean, and earlier in the later district than in the neighbourhood of Bristol, it is inferred that a change, resulting in the shallowing of the sea, took place, which initiated conditions suitable for that luxuriant growth which is now compressed into so many seams of coal.

It was after a considerable thickness of Coal Measures had been formed that the crust-pressures referred to above acted, and it was then that the Malvern Hills were elevated, according to Professor Groom, in sections proceeding from north to south with the greatest uplift in the south; but he also thinks that it was not until post-Liassic times that they attained anything

like their present definition.

The crust-pressures so affected the geographical conditions that a lacustrine area was formed over the Midlands, in which the Upper Coal Measures of those parts were laid down. How far this lacustrine area extended into Herefordshire cannot now be ascertained, because apart from the enormous denudation that has taken place in comparatively recent geological times, there was considerable Pre-Permian denudation. This is known to have been the case from the relations of the Permian rocks to the subjacent beds in certain of the Worcestershire sections. According to Professor Groom, this Pre-Permian denudation removed the Upper Coal Measures 'nearly or quite to the level of the old plain on which they were deposited, and in most cases denudation proceeded still further, so that the Haffield Breccia rests directly upon the older rocks.'

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#### PERMIAN SYSTEM

In Herefordshire the only rocks which are probably of Permian age are certain conglomerates at Haffield, at the southern end of the Malvern Silurian tract, and at Whippets in the Cradley district.

The conglomerates in the neighbourhood of Haffield are composed of well-rolled fragments of Uriconian and Silurian rocks imbedded in a dark-red sandy matrix—the pebbles having no doubt been derived from the

partial destruction of rocks in the neighbourhood.

Phillips was the first to suggest the term 'Haffield Breccia,' 84 and while in 1848 he regarded the accumulation as basal Triassic, later he grouped it with the Permian. Symonds speaks of it as Permian, 85 and Professor Groom thinks that this is its age; but Mr. Wickham King prefers to consider its precise date an open question, as certain of the Bunter and Keuper deposits much resemble it in lithic structure. 86 As Professor Groom, however, points out, if the Haffield Breccia is basal Bunter, it is an older Triassic deposit than any known in this country. Until more evidence is forthcoming to prove the contrary, the Haffield Breccia may be regarded as Permian, and equivalent to the well-known Trappoid Conglomerate of the Midlands.

The Permian rocks of England, west of a line drawn north and south along the Pennine axis, appear to have been formed in a land-locked stretch of water which had connexion with the main sea to the east by means of a strait situated near the present southern termination of the Pennine Range. Professor Groom is of opinion that the geographical distribution of the Haffield Breccia was once far greater than at the present. This is highly probable, but it is impossible to indicate its original limits.

#### TRIASSIC SYSTEM

With the Permian our account of the rocks which belong to the Palaeozoic Group closes. The third and last great group is the Neozoic. It comprises a number of systems, series, &c., the oldest series being the Bunter.

In Herefordshire the Bunter rocks are bright-red sandstones often called —after the village in the neighbourhood of which they occur—the Bromesberrow Beds; but in this county they occupy a very small area—barely half a square mile in extent. Once no doubt they extended farther into the county, passing over the Haffield Breccia; but except for the reddish colour with which they have stained the contiguous Silurian rocks, all evidence of their more extended distribution has been removed. No fossils have been obtained from the rocks in Herefordshire or from the succeeding Keuper deposits, which occupy an area as small as that where the Bunter rocks prevail.

In Germany, between the Bunter and Keuper Series occur richly fossiliferous marine beds called the Muschelkalk; but although they may be, and probably are, represented in point of time in this country, they have not been identified on the test of included organic remains.

<sup>84</sup> Mem. Geol. Surv. ii, pt. 1 (1848), pp. 111–12. 86 Quart. Journ. Geol. Soc. lvi (1961), p. 196.

<sup>85</sup> Records of the Rocks (1872), pp. 417-18.

The Keuper Series is divisible into two parts; an Upper, and a Lower or 'Waterstones.' The Waterstones are massive-bedded soft red sandstones, but do not occur at the surface in this county. The succeeding beds are marls, usually of a red colour, but frequently variegated. They occupy, in this county, a narrow strip of country along the eastern side of the Palaeozoic rocks of the Cradley district, against which they are faulted.

The Bunter Beds were probably accumulated under desertic conditions, in other words under conditions similar to those which obtain at the present day in the deserts of Central Asia and Arabia; while the main mass of the Keuper Marls is thought to have been accumulated in an inland sea not differing in any marked respect from the Caspian of the present day.

The Keuper Marls are the newest 'solid rocks' in Herefordshire. But subsequent to the time of their formation there was deposited the vast thickness of clay, limestone, and sand, which made up the Jurassic System. These beds are seen in the Vale of Gloucester, in the Cotteswold Hills, and in the great inclined plain which extends from close to the edge of the Cotteswold Hills nearly to the foot of the Chalk escarpment. The Chalk escarpment shows a great thickness of chalk rock, and knowing also that this is a deep-sea deposit, it seems reasonable to suppose that it once extended much further west than the line of its present outcrop. The probability is that this rock at least extended into Herefordshire, which means that Herefordshire was at that time beneath the sea.

Towards the close of Chalk times there was upheaval, and it was such that a plain was formed with a slope from the north-west to the south-east. From the date of this uplift until the present, except possibly for a comparatively insignificant interval (for which supposition there is little evidence as yet), during the long ages in which the Chalk Beds that are unrepresented in England (the Danian), and the whole of the Tertiary System, were being formed in other parts, the surface of Herefordshire was being sculptured by subaërial denudation.

#### RIVER DEVELOPMENT

According to the 'theory of River Development,' when the Chalk plain was uplifted towards the close of the Cretaceous Period, it was inclined from north-west to south-east, and was bounded on the south by a range of hills which is now indicated by the Vales of Pewsey and Kingsclere and of the Weald.

The River System which was initiated upon this inclined plain had its main river flowing from west to east along the northern slope of this range of hills, and into it—joining it on its left bank—were rivers coming from the north-west, and therefore having approximately a north-west and a southeast direction. These primary streams are called 'consequents.'

A very little amount of consideration will show that as time progressed these consequent streams would develop tributaries, which would work along the lines of least resistance. That was generally along the strike of the rocks, and since the original consequents flowed with the dip, and the strike is at right angles to the dip, the tributary streams would join the parents at right angles or thereabouts. In this way a network of rivers was developed,

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all of which were engaged in lowering the level of the country. By degrees the younger rocks were cut through, and the older revealed. A surface of very diverse stratal composition was thus laid bare, out of which, in this county, differential denudation has developed a pleasing diversity of upland and lowland.

In the orientation of portions of certain of the rivers of the Wye System it is thought that there is perpetuated the direction of at least three of the original consequent streams. Mr. S. S. Buckman considers that the course of the first of these three original consequents is approximately indicated by the Wye above Hay (the 'Upper Wye'), the Monnow, the Gloucestershire Little Avon, the upper reach of the Bristol Avon, and a line connecting this with the Kennet.<sup>87</sup> The second is thought to be indicated by the 'Middle Wye' (the portion between Willersley and Holme Lacy), the Gloucestershire Frome, and a line thence to Marlborough; while the third is marked out by a portion of the Lugg (that to the north-west of Stoke Prior, near Leominster), the greater part of the Leadon, and the Churn, joining the preceding consequent somewhere near Swindon.

From these remarks it will be understood that these consequents flowed across the area which is now the Lower Severn Valley. Therefore it is obvious that the valley has been hollowed out since. The theory is that it was excavated by the Severn, which—starting on a 'strongly tidal estuary,' cut its way backwards, capturing the consequents which crossed its path one after another, and diverting the waters of the rivers to the west of the 'elbow' of capture into its own channel, and causing the beheaded streams to take their rise at some point further to the south-east.

It is thought that the Middle Wye captured the head waters of the Monnow, before the Monnow was captured by a 'subsequent' developed by the Severn; and that this subsequent, cutting its way backwards, then captured first the Middle Wye and then the Lugg. Thus most of the drainage of the county was effected by a southerly flowing stream, and in this way the central portions of the county became hollowed out.

Such in brief is this theory of river development as far as it applies to Herefordshire. It is speculative, but suggestive, and explains many otherwise unintelligible phenomena.

## THE SUPERFICIAL DEPOSITS, ETC.

The deposits and various remains to be noticed in this part belong to the Pleistocene Epoch, or that epoch which intervened between the close of the Pliocene Epoch and the Roman occupation.

During a part of this epoch, as is well known, the climate was very rigorous, and Arctic conditions obtained. Glaciers and ice-sheets spread over the greater part of Britain.

In the north of England in particular, evidences of the Glacial Period or Great Ice Age are abundant in the form of striated rock-surfaces, boulders, and boulder-clays; but, while in Herefordshire there are the remains of undoubted moraines, on the whole the evidence is neither so abundant nor so obvious.

At one time it was generally believed that in the Glacial Epoch Herefordshire was submerged, and that floating ice dropped the large boulders which are now stranded on many of the hill-tops; while beneath the waters were accumulated gravels and High Level Drifts. Symonds and his contemporaries thought that after this first submergence there was elevation, and that over what was formerly the sea-floor roamed the mammoth and Siberian rhinoceros, the musk ox, and the reindeer; while man dwelt in the caverns in the hill-sides.<sup>88</sup>

Murchison also believed in the submergence of by far the greater part of the county, but thought that the materials of the Superficial Deposits had not travelled far, and had been mainly derived from the hills on and just beyond the north-west limits of the county. The most important observations he made in the light of modern ideas were, that the coarser kinds of Superficial Deposits extended farthest east and south-eastwards in front of the gaps in the western hills, and that the materials were arranged with little evidence of stratification over hill and combe alike. Murchison no doubt saw the accumulations now considered to be of morainic origin, but failed to grasp the full significance of the facts.<sup>89</sup>

After Murchison's researches, until quite recently, the Superficial Deposits attracted little attention, although it is true that a number of vertebrate remains had been collected from time to time from isolated sections. Now they are the subject of much active investigation, and much valuable information may be expected in the near future on the latest but by no means the least interesting period of the geological history of Herefordshire.

Mr. T. S. Aldis appears to have given the incentive to the work. He thinks that in the Glacial Epoch Herefordshire was probably occupied by a 'mass of comparatively stagnant ice of great depth,' but before this idea can

be accepted more information is necessary.90

The deposits which are undoubtedly morainic in origin occur principally in the western part of the county. In the neighbourhood of Willersley, in the Wye Valley, near Hay, the ridge running out from Merbach Hill is regarded by Mr. Aldis as a lateral moraine, which caused the diversion of the Wye from its old channel for a considerable period, and he thinks that it was only in comparatively recent geological times that it was enabled to regain its former course. The peculiar ridge extending southwards through Norton Canon and Staunton on the Wye, and south-westwards to Brobury, Mr. Aldis considers to be a terminal moraine; and he also thinks that during closing Glacial times the district around Herefordshire was a lake broken with a few islets—some, the remnants of ancient hills; others, moraine-heaps.

The Rev. H. E. Grindley has recently shown that a great terminal moraine, some ten miles long and between two and three broad, stretches from near Kingstone Grange, six miles south-west of Hereford, to Wellington Bridge, some five-and-a-half miles to the north of the city. Its course is indicated by a number of gravel-pits, and the ridge itself is cut through by the Wye at Breinton, where a section shows that the component materials are imbedded in more clay than usual. The best section of the moraine, however, is that at Stretton Sugwas, in a large gravel-pit by the side of the railway, where

<sup>88</sup> See Old Stones and The Severn Straits.

<sup>89</sup> Silurian System (1839), pp. 511-15.

<sup>90</sup> Trans. Woolhope Nat. F. C. 1902-4, pp. 325-9.

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it is seen to be made up of an anticlinal of clay, flanked with débris of Welsh grits, Ludlow rocks, clay-slates, fragments of igneous rocks, &c., measuring anything up to 5 ft. 6 in. by 2 ft. by 1 ft. 9 in. 91

Hereford itself is built for the most part upon river-gravels, into which the Glacial deposits seem to merge. Excavations in the city and its vicinity frequently expose the gravels, and occasionally remains of mammoth

are found.

The gravels which were formerly worked at Wilcroft and Hagley were composed of a remarkable assemblage of rocks—large angular pieces of Old Red Sandstone, blocks of Cardington grits from Church Stretton, fragments of Clee Hill basalt, Hope Bowdler trap, and quartz-pebbles; 92 while Curley obtained a pebble containing the cast of a Dactylioceras commune.98

The hill-sides between Richard's Castle and Kington and Kington and Hay, are often obscured with thick accumulations of débris, which render the ground difficult of cultivation; but between Richard's Castle and Kington, away from the hills, the Superficial Deposits become finer in texture, and partake, to a considerable extent, of the nature of the rocks upon which they Thus at Luston, in the lowlands, near Leominster, Murchison observed a section of drifts based upon the Old Red Sandstone, in which red and white sand predominated, and was veined with one or two seams of gravel. sometimes patches of coarser material occur, as at Wickton, near Leominster, where large masses of Silurian Limestone thrown out of excavations for drains at first suggested an inlier of Silurian rocks as at Shucknall Hill. excavations, however, showed that such was not the case: the blocks had been transported, probably by ice-action.94

In the Woolhope district % coarse débris of the local rocks is heaped up against the hills along the south-western side of the inlier, and are spread out in front of the gorge of the Pentalow Brook at Mordiford. In the road-side a short distance to the east of the Moon Inn at Mordiford, is a very clear section of the deposits, which was studied by Murchison, and later by the Rev. F. Merewether. 96 Merewether also described sections by the road-side between Mordiford and the bridge over the Wye to Holme Lacy, and in the village of Fownhope, in all of which a similar deposit was seen. Murchison remarked that the 'Woolhope Valley of Elevation' was one of 'clean' denudation; there was no accumulation of local débris, and he had not noticed any foreign drift. Merewether, however, found a patch of local débris at least several acres in extent near the Court Farm, Woolhope; and quartz-pebbles, which Symonds pronounced foreign to the district, in the Haugh Wood.

In the Malvern district Superficial Deposits occur in the neighbourhood of Eastnor and around Colwall. The section at Clincher's Mill is well known. The component materials of the deposit are mostly of local origin. At the base the section, in Symond's time, showed large angular masses of diorite, Llandovery, Wenlock, and Ludlow rocks; in the middle similar materials,

<sup>91</sup> See Proc. Cotteswold Nat. F. C. xv, pt. 3 (1906), p. 196.

<sup>92</sup> Records of the Rocks, p. 166.

<sup>93</sup> Trans. Malvern Nat. F. C. pt. 3, (1853-70), p. 27.
94 Trans. Woolhope Nat. F. C. 1868 (1869), pp. 3-6.

Silurian System (1839), pp. 436–7.
 Trans. Woolhope Nat. F. G. 1870 (1871), pp. 173–7; ibid. 1877, pp. 18–21.

but more rolled; and at the top 'Northern Drift' pebbles.<sup>97</sup> When Phillips saw the section, however, a more sandy development was being worked.<sup>98</sup> Brooks obtained from here the molar of *Elephas antiquus*. Ledbury is built, partly on the Old Red, and partly on the gravels of the Leadon, from which a number of bones and teeth of mammoth and rhinoceros have been obtained; while from near Bosbury bones of extinct species of elephant, elk, and deer, are recorded. The drift of the Cradley district is interesting on account of the numbers of waterworn specimens of the Liassic pelecypod *Gryphaea arcuata* that are being constantly found.<sup>99</sup> Presumably they have come from the north.

In the lowlands of that portion of the county which lies between Clifford on the Wye, near Hay, and Kerne Bridge, also on the Wye, and near the celebrated Goodrich Castle, few details concerning the Superficial Deposits have been recorded.

An instructive section was revealed at the foot of the hill upon which Clifford's Castle is built when the railway was constructed. Here Symonds noticed a gravel-bed full of the bones of ox, boar, and deer, overlaid by silt and gravel at least 100 ft. thick, while spread over the whole of the hill-side was coarse débris, distributed, so Symonds held, by land-ice.

Gravels, which Symonds referred to the Low Level Gravels, cap the hill upon which Hill Court, to the east of Goodrich, is built, and the deposits there contained some very large masses of rock.

Several lakes must have existed in Herefordshire in comparatively recent times. In sewerage excavations lake-silt has been proved at a depth of 40 or 50 ft. below the surface at Hereford; while in Stonelow Meadow, near Barr's Court Station, Curley recorded in descending order, (1) surface-soil, 1 ft.; (2) brick-earth, 3 ft.; (3) peat-bed, 3 ft.; and (4) a marl-bed with leaves in the upper portion and crowds of fresh-water shells, such as Vivipara vivipara, Valvata piscinalis, Sphaerium corneum, and species of Planorbis and Limnaea, in the lower. The marl-bed was 2 ft. thick. 101

The most interesting discovery in connexion with the Pleistocene deposits was made quite recently by the Rev. H. E. Grindley, who found at Bredwardine a clay-bed, pierced with root-like structures, which proved to be full of foraminifera. Mr. Joseph Wright, of Belfast, who identified the foraminifera from the Bredwardine clay, found them also, but less plentifully, in clay from Breinton associated with diatoms. Mr. Grindley has been unable to definitely ascertain whether these foraminiferous clays come above or below the Glacial Drifts of the neighbourhood. They look as if they occupied an inferior position, but Mr. Wright reports that the foraminifera are all common shallow-water forms and might be found almost anywhere in muddy places off our coasts; while the associated diatoms in the Breinton clay indicate a brackish water deposit, which, from collateral evidence, was laid down close to the shore. 'The evidence goes to show a submergence of 200 ft. or more.'

<sup>97</sup> Proc. Cotteswold Nat. F. C. iii (1865), p. 35.

<sup>98</sup> Mem. Geol. Surv. ii, pt. 1 (1848), pp. 15 and 79.
99 Murchison and Symonds, Trans. Woolhope Nat. F. C. 1852, pp. 48-50; Trans. Malvern Nat. F. C. pt. 3
1852-70), pp. 6-7.

<sup>(1852-70),</sup> pp. 6-7.

100 See Merewether, Trans. Woolhope Nat. F. C. 1877, pp. 21-2.

101 Ibid. 1866 (1867), pp. 253-4; see also H. C. Moore, ibid. 1902-4 (1905), pp. 330-5.

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The Alluvium which is found forming level stretches bordering the rivers is the newest geological deposit, and in many places is still being added to. It gives rise to some of the richest meadow-land in the county. Occasionally horns of red deer and of Bos primigenius are found in it.

Traces of Prehistoric Man require notice in this essay. niferous Limestone of the Great Doward are several caves. The principal ones are two in number—King Arthur's Cave or Hall, and the Bannerman Cave. The first was very thoroughly investigated by Symonds, 102 and yields to none in interest. Evidence of man in the form of flint flakes was found beneath deposits of stalagmite and cave-earth many feet in thickness. In descending order there was cut through (1) black soil with fragments of pottery; (2) cave-earth with flint implements, worked pebbles, and the teeth and jaws of the bear and horse; (3) stalagmite; (4) red sand and pebbles of greenstone rock; (5) stalagmite; and (6) cave-earth, in which and 'Lower Silurian' there was a large number of bones, teeth, and jaws, belonging to rhinoceros, horse, reindeer, elk, bison, cave lion, hyena, and mammoth. The flint flakes occurred chiefly in the upper portion of this basal cave-earth. In the Bannerman Cave, some 50 ft. higher up the hill-side, a perfect lower jaw of a beaver has been found. Flint flakes have also been collected in the neighbourhood of Ledbury.103

<sup>103</sup> Records of the Rocks (1872), pp. 350-3; Geoi. Mag. 1871; Trans. Woolhope Nat. F. C. 1871, p. 21; 1bid. 1874 (1880), pp. 17-24; ibid. 1884 (1890), pp. 217-18; Flora of Herefordshire, p. vi. <sup>103</sup> H. C. Moore, Trans. Woolhope Nat. F. C. 1894, pp. 191-3.

# PALAEONTOLOGY

EREFORDSHIRE is essentially the county of the Old Red Sandstone, which occupies nine-tenths of its area; and, with the exception of a few from the underlying Ludlow beds, the remains of fish and fish-like creatures from this formation are the only chordate fossils (or, at all events, the only ones of any importance) found within its limits. Many of these Old Red Sandstone fossils are types either peculiar to, or first described from, the county; while those from the Ludlow beds are the oldest of all known chordate fossils. Messrs. Salwey and R. Lightbody, of Ludlow, and Mr. G. H. Piper, of Ledbury, were among the most assiduous collectors of these fossils, especially in the well-known 'passagebeds' between the Ordovician and the Old Red Sandstone in the cutting at the entrance to Ledbury tunnel, at the time when the Great Western Railway was in course of construction. The late Dr. Grindrod, of Malvern, was also an energetic collector, and one of the fish-like creatures from Ledbury has been named in his honour. The Rev. W. S. Symonds was another local collector after whom a species has been named. All the then known Herefordshire chordate fossils have been noticed either by the late Professor T. H. Huxley,1 or, later on, by Professor E. Ray Lankester; 2 but, owing to their imperfect condition and the difficulty of interpreting from such fragments the real structure of creatures so unlike any now living, many of these determinations have required revision.

The majority of the chordate fossils from the Old Red Sandstone of the county belong to the armoured group of Ostracodermi, which is classed by some authorities among the true fishes, while by others it is regarded as forming a class by itself outside the limits of the Vertebrata. Hence it is convenient to speak of these fossils as chordates rather than as vertebrates. Other species belong, however, to undoubted fishes of the group Arthrodira, which is included in the class of Dipnoi, or lung-fishes. There are likewise a few remains of other groups of fishes, mostly in the form of spines, whose systematic position is often a matter of difficulty.

It should be added that in the case of fossils from the neighbourhood of Ludlow, which is situated close to the Herefordshire border, it is often doubtful whether they were obtained from that county or from Shropshire.

<sup>&</sup>lt;sup>1</sup> See Rep. Brit. Assoc. 1858, and Quart. Journ. Geol. Soc. xiv, 267 (1858), and xvii, 163 (1861).
<sup>2</sup> See Quart. Journ. Geol. Soc. xx, 196 (1864), and 'Fishes of the Old Red Sandstone' (Mon. Pal. Soc. London), 1868.

First on the list stand two spines obtained by Mr. J. E. Lee from the Lower Old Red Sandstone (passage-beds) of Tin Mill, Downton, near Ludlow, which is apparently in Herefordshire. These were described by Agassiz in 1837, and again in 1845, under the name of Ctenacanthus ornatus, but are provisionally assigned, with the same specific name, by Dr. A. Smith Woodward to Climatius, a genus of primitive sharks belonging to the group Acanthodii, characterized among other features by the presence of dermal appendages to the gill-arches, which probably took the form during life of frills of skin. Similar spines are known from the Old Red Sandstone of Worcestershire.

From both the Upper Ludlow beds and the Lower Old Red Sandstone (at Ledbury) of the county have been obtained spines of an unclassified shark-like fish which has been named Onchus murchisoni. It has been stated that some of the type specimens (now lost), which apparently came from Herefordshire, were the remains of crustaceans, but others appear to have been fragments of fish-spines. Be this as it may, undoubted fish-spines from near Ludlow and Ledbury, in the collection of the British Museum, exhibit the distinctive characters recorded by Agassiz in his original description. Other spines of the same general type from the Upper Ludlow and the Downton Sandstone at Kington and the Lower Old Red Sandstone of Ledbury indicate a second species of the same genus, which should be known as O. tenuirostris, although it has also received the name O. semistriatus. Yet other specimens from the county have been doubtfully assigned to the so-called genus Ptychacanthus, typically from the Old Red Sandstone of Monmouthshire.

More remarkable still are certain dermal tubercles, probably of Ostracodermi, from the Upper Ludlow bone-bed of the county, which have been made the type of the genus and species *Thelodus parvidens*. Similar tubercles have been found in the Ludlow bone-bed at Norton, near Onibury, Shropshire, and in the Isle of Oesel, in the Baltic; <sup>6</sup> and complete examples of the fishes to which they belonged have deen discovered in the Upper Silurian of Lanarkshire, Scotland.

Coming to the above-mentioned armoured Ostracodermi, we have in the section Heterostraci, which includes only the single family Pteraspididae, the typical genus Pteraspis represented by the two species P. rostrata and P. crouchi, both these having apparently been named on the evidence of English specimens. Remains of these species occur chiefly in the Lower Old Red Sandstone near Downton Hall, Whitbatch, and other spots in the neighbourhood of Ludlow. Pteraspis, as now understood, is characterized by the possession of a complex external dorsal shield, carrying a spine on the hinder edge, while the ventral shield is simple. Such ventral shields have been made the types of so-called genera and species under the names of Scaphaspis (or Cephalaspis) lloydi and S. lewisi.<sup>7</sup> A remarkably fine specimen of one of these ventral shields from Kentchurch Hill, near Pontrilas, Herefordshire, was presented to the British Museum in 1889 by Mr. J. F. Symonds.

A second genus of the same family, Cyathaspis, was founded on specimens from the Upper Ludlow beds and Downton Sandstone of the county. This

## PALAEONTOLOGY

genus, it may be observed, has an oval and spineless dorsal shield consisting of four pieces—two central and two lateral. The typical Cyathaspis banksi originally described as Pteraspis—is recorded not only from the Upper Ludlow bone-bed near Ledbury, but likewise from the Downton Sandstone of Kington The so-called Scaphaspis, or Pteraspis, truncata, founded on and elsewhere. Kington specimens, appears to be specifically inseparable from the former. On the other hand, a specimen from the Lower Old Red Sandstone of England's Hill Quarry, Bodenham, in the collection of the British Museum, apparently represents a second species, for which the name C. macculloughi has been suggested.8 The so-called Cyathaspis symondsi, represented by a specimen in the Museum of the Geological Survey from the Cornstones of the county, is very doubtfully distinct.9 Fragments of dermal plates from the Lower Old Red Sandstone of Bush Pitch, Ledbury, perhaps referable to pteraspidians, have been named Kallostrakon podura by Professor Lankester, but nothing more definite can be stated with regard to their affinity.10

The Osteostraci, or second group of the Ostracodermi, which includes the families Cephalaspididae and Tremaspididae, is represented in the county by three if not four species of the typical genus Cephalaspis, easily recognized from the striking resemblance presented by its great head-shield to a cheese-Of these species, Cephalaspis lyelli and C. (Zenaspis) salweyi are common to the Lower Old Red Sandstone of certain other counties, but C. (Hemicyclaspis) murchisoni is peculiar to the Ludlow Tilestones and the Old Red passage-beds of the county. Possibly the fragments mentioned above under the name of Kallostrakon podura may really belong to this creature. Whether Gephalaspis lightbodii, apparently only known by a single specimen from the Tilestones near Ludlow, should be included in the fauna of this county or in that of Shropshire is difficult to decide. To the same family belongs Euceraspis pustulifera, a genus and species peculiar to the Upper Ludlow beds and Downton Sandstone of the county, although an allied form may occur in the Downton Sandstone of Shropshire, and another in the Palaeozoic of Dantzic. Euceraspis takes its name from the prolongation of the head-shield into a pair of long backwardly-projecting horns. allied is Auchenaspis, in which the aforesaid horns are shorter, and there is a dorsal plate behind the head-shield, not known to be present in Euceraspsis. Of the two British species, Auchenaspis egertoni is peculiar to the Ledbury passage-beds of the Old Red Sandstone, while Au. salteri is from the Upper Tilestones of the Ludlow neighbourhood, and may therefore occur either in Herefordshire or Shropshire, or perhaps in both.

Of the Palaeozoic armoured lung-fishes, or Arthrodira, only a single representative belonging to the typical family of *Coccosteidae*, or berry-bone fishes, occurs in the county; this being *Phlyctaenaspis anglica*, which is a member of a genus typically from the Lower Devonian of New Brunswick. This species was described upon the evidence of specimens from the Lower Old Red Sandstone (Cornstones) of Cradley in Herefordshire, but also occurs in the corresponding formation of Heightington, Worcestershire.

Next on the list comes the widely distributed fringe-finned ganoid *Holoptychius*, of which the large cycloid scales are said to occur in the Old Red Sandstone of Herefordshire and the adjacent counties, although they

have not yet been specifically determined.<sup>11</sup> Finally, another genus of fringe-finned ganoids, representing a family (Onychodontidae) by itself, and known otherwise only by two or three American species, and by one from Spitzbergen, occurs in the Lower Old Red Sandstone of the county. Of the two known specimens of the English species, Onychodus anglicus, <sup>12</sup> obtained at Ledbury, one is preserved in the British Museum, and the other in the museum at Oxford. Each consists only of the extremity of the lower jaw, with its few teeth, which are however perfectly characteristic, showing the large size and spiral arrangement distinctive of this genus of ganoids.

11 Cat. Foss. Fish. Brit. Mus. ii, 330.

12 Ibid. 392.

THE VICTORIA HISTORY OF THE COUNTIES OF ENGLAND

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N general character the flora of the county corresponds to its geographical position. Herefordshire is a West-Midland county bordering on its western side on the Welsh counties of Brecon and Radnor. The River Wye, rising in central Wales and having (along with its tributaries) a Welsh course of about 100 miles, has a length of 72 miles within Herefordshire. These circumstances give to the flora of the county a closer connexion with those of Breconshire and Radnorshire on the west and of Shropshire on the north than with those of Worcestershire and Warwickshire with which Herefordshire is associated in the Watsonian sub-province of Mid-Severn.

The flora of Herefordshire is limited by the following conditions:—

- (a) The complete absence of sea coast and tidal estuary.
- (b) The very small and diminishing area of bog and marsh land.
- (c) The comparatively small area of open common and heath land.

Taken together these circumstances greatly limit the number of species.

They are counteracted to a certain extent by conditions tending to enrich it:—

- (a) The large area in the county of woodland which is almost certainly part of the primitive forest of Britain. This woodland, after diminishing rapidly in the earlier half of the nineteenth century, is not likely under the present conditions of agriculture to diminish in the near future.
- (b) The influence of the Wye system and the Welsh borderland which adds a good many montane species.

The total of recorded plants having good claims to be considered native in the county is as follows:—

Floweri	ng	plants	and	fern	allies,	abou	ıt	•	•	990
Musci			•			,	•	•	•	326
Fungi					•	•	•	•	•	1439

Worked out under the Watsonian 'Types of distribution' the flowering plants and ferns come out as follows:—

British type 558, or rather more than one-half. English type 253, or rather more than one-quarter.

The remaining groups are represented by 25 Scottish, 9 Intermediate, 10 Highland, 21 Germanic, 15 Atlantic, 9 Local. These numbers total to 900, leaving about 90 unplaced, mostly aliens.

Synopsis of the number of species in the Natural Orders:—

Ranunculaceae				31	Halorageae			8	Labiatae	•	37
Berberideae .				I	Onagrarieae			ΙI	Illecebraceae .		I
Nymphaeaceae				I	Cucurbitaceae .			I	Chenopodiaceae		8
Papaveraceae				5	Umbelliferae .			28	Polygonaceae .		19
Fumariaceae				6	Araliaceae			I	Thymelaeaceae.		í
Cruciferae .				30	Cornaceae			I	Euphorbiaceae .		6
<b>▼</b> \				2	Caprifoliaceae .			6	Urticaceae		6
Cistineae				I	Rubiaceae			I 2	Ceratophylleae .		2
Violaceae .				9	Valerianeae	٠		5	Loranthaceae .		1
Caryophylleae				34	Dipsaceae			5	Aristolochiaceae		1
Portulaceae .				I	Compositae			87	Cupuliferae		6
Polygaleae .				3	Campanulaceae			6	Salicineae		9
Hypericineae				9	Vaccinieae			2	Coniferae		2
Malvaceae .				3	Ericaceae			4	Hydrocharideae.		I
Tiliaceae .				2	Monotropeae .			1	Orchideae		25
Lineae				2	Primulaceae			7	Irideae		2
Geraniaceae.				14	Oleaceae			2	Amaryllidea <b>e</b> .		2
Ilicineae				I	Apocynaceae .			I	Dioscoreae		I
Empetraceae		٠		1	Gentianeae			5	Liliaceae		10
Celastrineae.				I	Boragineae			13	Juncaceae		16
Rhamneae .				2	Convolvulaceae.			3	Typhaceae		5
Sapindaceae .				2				4	Aroideae		I
Leguminosae					Plantagineae .			5	Lemnaceae		4
Rosaceae .				128	Scrophularineae.			29	Alismaceae		4
Saxifrageae .				6	Orobanchaceae.			3	Naiadaceae		16
Crassulaceae.				4	Lentibularineae.		•	2	Cyperaceae		48
	-		-	1	Verbenaceae .			I	Gramineae		65
Lythraceae .				3							

It is mainly to its heirloom of aboriginal woodland that the rich development of the fruticose Rubi in Herefordshire is due. The commons and open waste lands of the county are both small in amount and poor in bramble forms. On the contrary the woodland is extremely rich both in forms and individuals. This fact, when contrasted with the poverty of the planted 'spinneys' of Leicestershire and other English counties, affords a strong presumption that the Herefordshire woods are really aboriginal. Moreover these plants are strikingly local; a single form or group of forms often occupying a woodland area nearly to the exclusion of all the rest. The number of distinct bramble forms recorded in the county to the year 1905 is about 128, arranged in the Rev. W. M. Rogers's 'Handbook' under 85 species and 43 sub-species and varieties (excluding the Babingtonian forms of Rubus caesius, L.). This gives to Herefordshire the position of the leading county in this genus: a position which is at present approached most nearly by Surrey, but may in the future be disputed by Shropshire when the brambles of that county have been more largely worked. Except the dry tops of a few wooded hills the fruticose Rubi occupy the whole area of Herefordshire woods, attaining their maximum of development and fruit-production on and under the northern base of wooded lowland slopes. The contrast between the woodlands and the open cultivated lands of the county is such that without special investigation of the former the bramble flora of the county might be accounted a very poor one. Of the rarer brambles of the county Rubus acutifrons and ochrodermis are spread over nearly the whole of its area and are not mentioned under the characteristic plants of particular districts; most of the remaining rarer species are noticed under their special districts.

Turning from these plants to those constituents of the county flora which most arrest the eye, the abundance of the oak and English elm deserves the first mention. Both of these have been termed 'Herefordshire weeds.' The predominance of the oak (in both its forms pedunculata and sessiliflora and their intermediates) is very marked in the woodlands. Numerous ancient oaks still exist in some of the Herefordshire parks, among which Moccas Park, the seat of the Rev. Sir George Cornewall, bart., deserves especial mention. The most remarkable individual trees and their measurements have been carefully recorded in the Transactions of the Woolhope Naturalists' Field Club. On the other hand the English elm (Ulmus campestris) takes an equally prominent position in the hedgerows of the cultivated parts and in alluvial In rich soil it reaches a large size, and its timber is said to contrast favourably with that of the elm of the Thames valley.

The mistletoe (Viscum album) is a well-known feature of Herefordshire, and it becomes especially conspicuous in winter with its evergreen habit and crowded white berries loading neglected apple trees and poplars (Populus monilifera), which being deciduous show the parasite to advantage. are of course not the only trees on which it occurs: about thirty-three species of trees and shrubs are at present known upon which the mistletoe has appeared spontaneously in Herefordshire: and seven or eight mistletoe-

bearing oaks, once accounted great rarities, are known in the county.

Another plant deserving special mention in connexion with Herefordshire is the beautiful water crowfoot (Ranunculus fluitans). This plant is so abundant to the exclusion of every other species of the genus in the shallows of the Wye throughout its course in the county, that it makes the river

during favourable seasons at midsummer a veritable water garden.

The monk's-hood (Aconitum Napellus) was first detected as a native of Britain in this county at Little Hereford on the Shropshire border. It is now known to occupy the bushy banks of streams at many stations both in Herefordshire and Monmouthshire and can claim to be a truly native plant.

The rare wild pear (Pyrus cordata) is undoubtedly native in this county. It has been detected in the woods near Ross, at the Dowards, and in those of

the Woolhope district.

Great interest attaches to the caraway (Carum Carvi) in Herefordshire. This plant occupies old pasture lands in the Woolhope and Sollers Hope district. The writer after a careful investigation became convinced that the caraway is a native in this district.

The remarkable form of marjoram (Origanum) called megastachyum which was first detected by Rev. W. H. Purchas at Kinsham in this county occurs in many other stations both in the north and south of the county and in West Gloucestershire. There is no reason to doubt its indigenous character.

The caper spurge (Euphorbia Lathyris) is abundant over a limited area in an old limestone wood on the lower Wye, and has strong claims to be considered native at this station.

Epipogum aphyllum is well known as one of the rarest of British orchids. Discovered in 1854 on the north-east borders of the county this remained the sole record in Britain until 1876 when it was found near Ludlow, also on the borders of the county but in Shropshire.

The snowdrop (Galanthus nivalis) has strong claims to be considered

native in Herefordshire and Monmouthshire. In the south-west of Herefordshire in the parishes of St. Weonards and Garway it occurs in great plenty in thickets in damp situations in places which preclude the possibility of its being planted.

The yellow star of Bethlehem (Gagea lutea) occurs in Herefordshire in two widely separated localities, one near Ross, one at the western base of the

Malvern Hills.

Herefordshire woods are remarkable for the abundance in suitable spots of the rare sedge Carex strigosa, and of the wood-rush Luzula Forsteri. Wherever the latter occurs in conjunction with the spring wood-rush (Luzula vernalis) the hybrid (Luzula Borreri) is never far to seek. A grass rare inland (Gastridium lendigerum) occurs occasionally in and near dry Herefordshire woods, appearing after the coppice has been felled and then disappearing for many years.

Turning to special areas of the county, the Black Mountain region bordering on the counties of Brecon and Monmouth deserves especial recognition as contributing the greater number of the montane and sub-montane species. The Hatterell Hill in Herefordshire proper here maintains a level of 2,000 ft. and over for about 5 miles. Including the isolated Grwyne valley and certain portions of the Black Mountain system lying in Monmouthshire and Breconshire many species of interest are found here alone in the area falling under this review. For particulars the reader is referred to the account of district 14.

In conclusion one small tract—the Doward Hills of the lower Wye valley—deserves especial mention in any account of the Herefordshire flora. The area of these hills is about 2,126 acres; and in this limited space 682 species and named varieties of flowering plants and ferns and 223 of mosses have been recorded. In a single winter day's ramble on these hills the writer saw and catalogued 120 species of mosses. These totals are year by year being added to. Some of the interesting flowering plants of the Dowards are particularized under district 2 (Ross).

#### BOTANICAL DISTRICTS

The county of Hereford was divided by the late Rev. W. H. Purchas and his fellow-workers about the year 1852 into fourteen districts for botanical purposes. These districts are as follows:—I, St. Weonards; 2, Ross; 3, Woolhope; 4, Ledbury; 5, Bromyard; 6, Frome; 7, Hereford; 8, Weobley; 9, Leominster; 10, Aymestrey; 11, Kington; 12, Pembridge; 13, Golden Valley; 14, Black Mountain. These districts were again grouped as follows:—I-3, South; 4-6, East; 7-8, Central; 9-12, North; 13-14, West. The principle on which these districts were formed seems to have been as much convenience of investigation as geological or geographical features, these latter being inapplicable to the circumstances of much of the county; the districts are therefore mainly grouped round the main towns and villages, and bounded by the main roads existing in the county. Subordinate to this principle, however, geological and orographical features were taken into account.

Descriptions of the several districts with their leading botanical features follow:—

#### I. St. Weonards

This district occupies the south-west angle of the county, and consists mainly of the basin of the Garron Brook, together with the tract to the north-west, extending as far as the Worm Brook. From Ganarew on the south to Llangua on the north the district bounds on Monmouthshire; its opposite longer side and southern apex follow the line of watershed between the Garron and the

Wye, as marked with sufficient exactness by the main road from Monmouth to Hereford, while its northern end is determined by the Worm Brook. The district consists chiefly of the Cornstone series of the Old Red Sandstone, rising at Garway Hill to an elevation of 1,203 ft. The botanical features of the district are not especially remarkable; the English catchfly (Silene anglica) is found in sandy fields in St. Weonards parish, and several interesting brambles at Welsh Newton (Rubus birtifolius var. mollissimus, R. fuscus forma, and R. fusco-ater), and Rubus sciaphilus at St. Weonards; the blue pimpernel (Anagallis arvensis, var. caerulea) on the borders of Monmouthshire in the parishes of Garway and Welsh Newton; a pond weed rare in the county (Potamogeton obtusifolius) in Llangarren parish; several orchids of interest (Habenaria conopsea viridis and bifolia) are abundant in the hilly parts. One of the most noticeable features of the flora is the abundance of the snowdrop (Galanthus nivalis) in the woods of the parishes of Garway and St. Weonards—here it is believed to be truly native. The local wood-rush, Luzula Forsteri, is abundant in this district.

The following list comprises the most noteworthy species of flowering plants:-

Ranunculus hirsutus, Crantz Viola canina, L.
Silene anglica, L.
Cerastium quaternellum, Fenzl.
Linum angustifolium, L.
Rubus argenteus, W. & N.
— nemoralis, P. J. Muell.
— Selmeri, Lindeb.
— sciaphilus, Lange
— leucandrus, Focke
— hirtifolius, Muell. & Wirtg.,
var. mollissimus (Rogers)

- Borreri, Bell Salt.

scaber, W. & N.
fuscus, W. & N.,
f. hirsutissima
pallidus, W. & N.
fusco-ater, W.
divexiramus, P. J. Muell.
dumetorum, W. & N.,
var. britannicus (Rogers)
Chrysosplenium alternifolium, L.
Dipsacus pilosus, L.
Anagallis arvensis, L.,
var. caerulea, Schreb.

Rubus podophyllus, P. J. Muell.

Habenaria conopsea, Benth.

— viridis, R. Br.

— bifolia, R. Br.

Neottia nidus-avis, L.

Galanthus nivalis, L.

Luzula Forsteri, DC.

Potamogeton obtusifolius, Mert. & Koch

Scirpus lacustris, L.

Carex Pseudo-cyperus, L.

Alopecurus geniculatus, L.,

sub-sp. fulvus, Sm.

#### 2. Ross

This district consists mainly of the valley of the Wye, from the borders of Gloucestershire on the south to Aconbury Hill (905 ft.) and Mordiford on the north. On the west it bounds upon St. Weonards district; on the north it follows the northern flank of Aconbury Hill and thence along the course of a small brook to the Wye, crossing which at Mordiford it follows the old Hereford and Gloucester road to the county boundary near the Lea. In addition to the Old Red Sandstone and the alluvium of the Wye, which occupies its greater part, this district is so delineated as to include the limestone region of the Doward Hills and an outlier of the Coal Measures of the Forest of Dean in Howle Hill.

The Ross district takes precedence of all the rest of the county in the number of interesting plants found in it. This botanical richness is due in large measure to the Doward Hills, which are undoubtedly, considering the smallness of their area, far the richest portion of the county. The Wye also contributes in this, its lowest portion in the county, several plants of great interest. To mention first a few of the interesting plants of the Dowards. Here are found the two hellebores (Helleborus viridis and foetidus), the rock hutchinsia (Hutchinsia petraea), the large-leaved lime (Tilia platyphyllos), the bloody cranesbill (Geranium sanguineum), the horse-shoe vetch (Hippocrepis comosa), a rare wild pear (Pyrus cordata), two rare whitebeams (Pyrus rotundifolia and intermedia), the madder (Rubia peregrina), the mountain everlasting (Antennaria dioica), several rare hawk-weeds, one of them, so far as is known, confined to the Wye valley (Hieracium lasiophyllum, planifolium, stenolepis and pachyphyllum), yellow bird's-nest (Hypopithys multiflora), deadly night-shade (Atropa Belladonna), a rare marjoram (Origanum megastachyum), fly-orchis (Ophrys muscifera), the two white helleborines (Cephalanthera pallens and ensifolia), three local and rare sedges (Carex digitata humilis and montana), and the drooping melic-grass (Melica nutans). Among the more striking river plants may be mentioned the following: - The floating water-crowfoot (Ranunculus fluitans), a rare winter-cress (Barbarea stricta), a bramble, almost confined in Herefordshire to the valley of the Wye (Rubus imbricatus), a rare water-starwort (Callitriche vernalis), a rare persicaria (Polygonum mite), a rare hybrid willow (Salix hippophaefolia), and the very rare pond-weed, Potamogeton salignus. Many rare and local brambles occur in different parts of this district. The wooded hills round Aconbury are clothed with Rubus Salteri; those in the neighbourhood of Ross with R. anglosaxonicus and its varieties vestitiformis and setulosus; on the Coal Measures of Howle Hill, Rubus thyrsoideus, Colemanni, rudis, pallidus var. leptopetalus, hirtus var. flaccidifolius, and other interesting forms occur. Here alone in the county the very handsome Rubus cavatifolius, so abundant in Monmouthshire, is found; but perhaps the most interesting feature of the bramble flora of the district is the abundance and luxuriance in the neighbourhood of Ross, and there only, of Rubus Purchasianus. The caper spurge

(Euphorbia Lathyris) seems to be a true native in a single rocky limestone wood; the yellow star of Bethlehem (Gagea lutea) at a single spot in a shady meadow bank; while the monk's-hood (Aconitum Napellus), occupies the bushy banks of a single stream. The rare loose-strife (Lythrum hyssopifolia) was once found in gravel brought from the Wye.

The following is a more complete list of the rarer plants of the Ross district:-

Ranunculus fluitans, Lam. Rubus leucostachys, Schleich., Hieracium stenolepis, Lindeb. Helleborus viridis, L. var. gymnostachys (Genev.) pachyphyllum, Purchas — foetidus, L. - Boraeanus, Genev. - sciaphilum, Uech., Aconitum Napellus, L. - adenanthus, Boul. & Gil. var. amplifolium, A. Lev Fumaria pallidiflora, Jord. - Gelertii, Frid. Hypopithys multiflora, Scop. - densiflora, DC. - anglosaxonicus, Gelert. Atropa Belladonna, L. Barbarea stricta, Andrz. Verbascum virgatum, Stokes sub-sp. vestitiformis, A. Ley Limosella aquatica, L. Hutchinsia petraea, R. Br. sub-sp. setulosus, Rogers Viola canina, L. - rudis, W. & N. Origanum vulgare, L., Polygala vulgaris, L., ericetorum, Lefv., var. megastachyum (Link) sub-sp. sertiflorus (P. J. Scutellaria minor, Huds. sub-sp. oxyptera, Reichb. Plantago Coronopus, L. Dianthus Armeria, L. Muell.) — cavatifolius, P. J. Muell. — pallidus, W. & N., Silene noctiflora, L. Polygonum mite, Schrank Stellaria nemorum, L. Euphorbia Lathyris, L. Hypericum montanum, L. var. leptopetalus, Rogers Salix triandra, L., Tilia platyphyllos, Scop. — longithyrsiger, Bab., var. Hoffmanniana, Sm. var. botryeros, Rogers Geranium sanguineum, L. decipiens, Hoffm. Anthyllis Vulneraria, L. hippophaefolia, Wimm.&Grab. - rosaceus (sp. coll.), sub-sp. Purchasianus, Rogers Hippocrepis comosa, L. Cephalanthera ensifolia, Rich. Prunus Cerasus, L. - Koehleri, W. & N. - pallens, Rich. Rubus idaeus, L., - Marshalli, Focke & Rogers Ophrys apifera, Huds. var. obtusifolius, Willd. — divexiramus, P. J. Muell. muscifera, Huds. - plicatus, W. & N. Convallaria majalis, L. - hirtus, W. & K., sub-sp. flaccidifolius (P. J. Gagea lutea, Ker. — imbricatus, Hort. Luzula Forsteri, DC., - carpinifolius, W. & N. Muell.) var. Borreri, Bromf. - dumnoniensis, Bab. Pyrus Aria, Ehrh. - mercicus, Bag. var. rupicola, Syme Butomus umbellatus, L. Potamogeton decipiens, Nolte - rotundifolia, Bechst. - villicaulis, Koehl., sub.-sp. rhombifolius, W. — intermedia, Ehrh. - salignus, Fryer Scirpus Caricis, Retz. - gratus, Focke - communis, L., Eriophorum latifolium, Hoppe var. Pyraster (L.) - leucandrus, Focke - pubescens, W., - cordata, Desv. Carex digitata, L. - humilis, Leysser var. subinermis, Rogers Lythrum hyssopifolia, L. Circaea alpina, L. - montana, L. — thyrsoideus, Wimm. Alopecurus geniculatus, L., - Salteri, Bab. Rubia peregrina, L. sub-sp. fulvus (Sm.) Scabiosa Columbaria, L. - Colemanni, Blox. Antennaria dioica, R. Br. Melica nutans, L. - Sprengelii, W. Festuca sylvatica, Vill. — hirtifolius, Muell. & Wirtg., Hieracium lasiophyllum, Koch Hordeum sylvaticum, Huds. var. planifolium, F.J. Hanb. var. danicus (Focke)

#### 3. Woolhope

The Woolhope district was intended to coincide as nearly as practicable with the Silurian strata surrounding the village and parish of Woolhope. This tract extends from Dormington and Mordiford on the north to the boundary of the county of Gloucester on the east and south. The main roads running through Tarrington, Stoke Edith, Dormington, and Mordiford, and thence in a south-east direction to the Lea, and coinciding with tolerable exactness with the lines of the

geological strata, have been made use of as boundaries.

The geological characters of this district are both remarkable and well known; their study gave rise to the title of the 'Woolhope Field Naturalists' Club,' which has done so much and such excellent work both for the geology and natural history of the county. There is a large area of woodland in this district, yet it is to some extent disappointing in the numbers of rare species of flowering plants found within its limits. By far the most interesting botanical feature yet brought to light here is the caraway (Carum Carvi) which occupies an area of old pasture land in the Woolhope neighbourhood extending some two square miles, and is apparently a native wild plant. Many plants showing a preference for dry limestone hills abound in the hills of this section of the county, such as the mealy guelder-rose (Viburnum Lantana), the liquorice vetch (Astragalus glyciphyllos), and the slender bird's-foot trefoil (Lotus tenuis). The Juniper (Juniperus communis) occurs on Marcle Ridge Hill, and the beautiful spring cinquefoil (Potentilla verna) is abundant throughout the district.

Several rare helleborines are found; the white and the marsh helleborine (Cephalanthera ensifolia and palustris) in the Haugh Wood and another species (Epipactis atro-rubens?) at Gorsley. The beautiful hybrid violet (Viola permixta) is found all through Herefordshire; another closely related hybrid which is far rarer (Viola sepincola) has been found in the Fownhope Woods and the rare wild pear (Pyrus cordata) in the Haugh Wood. The characteristic of the brambles of the Woolhope neighbourhood is the great multiplication of Caesian forms, few of which can have any name assigned to them; among these Bucknall's bramble (Rubus Bucknalli) has been identified by its author, Mr. J. W. White, F.L.S. and abounds at several localities. The Gorsley district is noted for abundance of the beautiful Rubus adornatus, and in the Queen's Wood, both in Herefordshire and Gloucestershire, grows the very rare bramble named from this large woodland Rubus regillus. A grass very rare in Herefordshire (Koehleria cristata) grows on Marcle Ridge Hill, and the common heath (Erica cinerea) is abundant at Gorsley alone in all the county.

#### List of more interesting plants found in the Woolhope district:-

Ranunculus Lenormandi, F. Schultz Helleborus viridis, L. foetidus, L. Viola odorata × hirta (sepincola, Jord.) Dianthus Armeria, L. Cerastium quaternellum, Fenzl. Hypericum montanum, L'Herit. Rhamnus catharticus, L. Genista anglica, L. Trifolium fragiferum, L. Anthyllis Vulneraria, L. Lotus corniculatus, L., sub-sp.tenuis(Waldst.& Kit.) Astragalus glycyphyllos, L. Lathyrus sylvestris, L. Rubus nemoralis, P. J. Muell., var. glabratus, Bab. - pubescens, W., var. subinermis, Rogers - macrophyllus, W. & N., var. macrophylloides, (Genev.)

Rubus hirtifolius, Muell. & Wirtg., var. mollissimus (Rogers) anglosaxonicus, Gelert, sub-sp. setulosus, Rogers - Borreri, Bell Salt. - radula, Weihe - oigoclados, Muell. & Lefv., var. Newbouldii, Rogers - regillus, A. Ley - Babingtonii, Bell Salt. - scaber, W. & N. - fuscus, W. & N., var. macrostachys (P. J. Muell.) - pallidus, W. & N., var. leptopetalus, Rogers longithyrsiger, Bab., var. botryeros, Rogers - rosaceus, W. & N., sub-sp. Purchasianus, Rogers sub-sp. adornatus, P. J. Muell.

Rubus minutiflorus, P. J. Muell. - Bucknalli, White Potentilla verna, L. Pyrus cordata, Desv. Carum Carvi, L. Viburnum Lantana, L. Dipsacus pilosus, L. Gentiana campestris, L. Lathraea Squamaria, L. Juniperus communis, L. Cephalanthera ensifolia, Rich. Epipactis? atrorubens, Schultz — palustris, Crantz Convallaria majalis, L. Typha angustifolia, L. Carex distans, L. - Pseudo-cyperus, L. Gastridium lendigerum, Gaud. Koehleria cristata, Pers. Brachypodium pinnatum, Beauv. Hordeum sylvaticum, Huds.

#### 4. LEDBURY

The first of the eastern districts of Herefordshire consists of the basin of the little River Leddon together with the hills rising to its east and the intervening tract between these and the Malvern range. Its boundaries on the north and west are formed by the Worcester and Hereford road until it reaches the Frome valley, thence southwards through Canon Frome and Ashperton to Pixley, from which point to the county boundary it borders the Woolhope district. On the south and east it is bounded by the counties of Gloucester and Worcester: west and north of the Malvern Hills this boundary was very irregular until rectified after the passing of the Local Government Act in 1892; a large piece containing the parish of Mathon lying west of the Malvern range belonging to Worcestershire, while a tract containing Cowleigh Park lying north of the Malverns belonged to Herefordshire. The plants of Cowleigh Park having been published in the Flora of Herefordshire are notwithstanding this change included in this essay. This district is chiefly made up of the Silurian hills rising above Ledbury, and includes a fringe of the igneous rocks of the Malvern range from Midsummer Hill on the south to the End Hill on the north.

The flora of this district is of much interest, containing several plants whose chief habitation lies mainly eastwards in Worcestershire, and several otherwise rare in the county of Hereford. On the margins of the Malvern range and along the foot of the hills the following plants have been found:—Climbing corydalis (Corydalis claviculata), wild mignonette (Reseda lutea), knotted spurrey (Sagina nodosa), least bird's-foot (Ornithopus perpusillus), bastard pimpernel (Centunculus minimus), yellow star of Bethlehem (Gagea lutea), and a rare hybrid sedge (Carex axillaris). Cowleigh Park with adjoining copses now reckoned as belonging to the county of Worcester supports the bee and frog orchises (Ophrys apifera and Habenaria viridis), the large-leaved lime (Tilia platyphyllos) which in the writer's judgement has claims to be considered native at this station, and several rare brambles (Rubus argenteus, obscurus, Bellardii and velatus). The neighbourhood of Malvern in its Worcestershire

portion is well known for its large and interesting series of rose forms; of these Rosa Doniana and R. systyla cross into Herefordshire at Cowleigh Park and Storridge. Among other rare plants found close to the Worcestershire border may be mentioned the Nottingham catch-fly (Silene nutans, L.) the two bedstraws, the narrow-leaved and the rough corn bedstraw (Galium erectum and tricorne), and a rush (Juncus tenuis) first detected in Britain after an interval of nearly 100 years in 1884 near Storridge. In addition to the above the greater burnet saxifrage (Pimpinella major) has been found at Cradley as the sole station in Herefordshire, and the field garlic (Allium oleraceum) in a wood at Colwall. The following is a full list of the rarer flowering plants known in this district:—

Ranunculus sardous, Crantz
Corydalis claviculata, DC.
Reseda lutea, L.
Silene nutans, L.
Cerastium quaternellum, Fenzl.
— semidecandrum, L.
Sagina nodosa, Fenzl.
Spergularia rubra, Pers.
Tilia platyphyllos, Scop.
Lotus corniculatus, L.,
sub-sp.tenuis, Waldst. & Kit.
Astragalus glycyphyllus, L.
Ornithopus perpusillus, L.
Rubus plicatus, W. & N.
— argenteus, W. & N.
— obscurus, Kalt. f.

Rubus Bellardii, W. & N. - velatus, Lefv. Rosa involuta, Sm., var. Doniana (Woods) — stylosa, (sp. coll.), var. systyla (Bast.) Sedum Telephium, L. Pimpinella major, Huds. Galium erectum, Huds. - tricorne, Stokes Scabiosa Columbaria, L. Jasione montana, L. Ligustrum vulgare, L. Lathraea Squamaria, L. Centunculus minimus, L. Plantago Coronopus, L.

Juniperus communis, L. Cephalanthera pallens, Rich. Epipactis palustris, Crantz Orchis ustulata, L. Ophrys apifera, L. Habenaria viridis, R. Br. Gagea lutea, Ker. Allium oleraceum, L. Juncus tenuis, Willd. Scirpus caricis, Retz. Eriophorum latifolium, Hoppe Carex axillaris, Good. — distans, L. Bromus ramosus, Huds., var. Benekenii (Syme) Brachypodium pinnatum, Beauv.

#### 5. Bromyard

This district forms the north-eastern point of the county where it abuts on Worcestershire. Its southern boundary is conterminous with the Ledbury district as far as the Frome valley; thence its western side follows the main road north-west to Bredenbury and Grendon Bishop; from this point it follows the watershed northwards to the county boundary near Bockleton. Its whole north and east frontier is formed by the Herefordshire and Worcestershire boundary, which is here extremely irregular. The district is one consisting entirely of Old Red Cornstones and Sandstones. The eastern part drains into the Teme, the western into the Frome Brook.

The outstanding botanical record of great interest connected with this district is the discovery here in 1854 of the very rare orchidaceous plant Epipogum aphyllum. The plant has never been refound here, but has been twice found since that date in the neighbourhood of Ludlow. Generally speaking the flora of the district resembles that of the Ledbury district which adjoins it on the south, but the latter is the richer in species. The Solomon's seal (Polygonatum multiflorum) has been recorded from two localities, and more than one of the helleborines occurs (Epipactis violacea and palustris), the first of these known nowhere else in the county, but abundant near Malvern in Worcestershire. The beautiful and little-known Teme valley abuts on Herefordshire, both at Whitbourne and at Stamford Bridge. It has a rich bramble vegetation; Rubus Boraeanus, praeruptorum, flaccidifolius, velatus, and triangularis, all being found in proximity to the latter place. The Teme produces also a rare figwort (Scrophularia umbrosa) in abundance; and a large wood near Edvin Ralph is the sole Herefordshire station for Rubus suberectus. A very rare eryngo (Eryngium campestre) used to grow at Upper Sapey in this district, but unfortunately it has been exterminated.

List of notable species:-

Viola canina, L.
Spergularia rubra, Pers.
Erodium moschatum, L'Herit.
Ornithopus perpusillus, L.
Rubus suberectus, Anders.
— argenteus, W. & N.
— Boraeanus, Genev.
— infestus, W.,
var. virgultorum, A. Ley
— praeruptorum, Boulay
— Bellardii, W. and N.

Helleborus viridis, L.

— foetidus, L.

Rubus serpens, W.

— minutiflorus, P. J. Muell.

— velatus, Lefv.

— dumetorum, W. & N.,

var. triangularis, A. Ley
Rosa spinosissima, L.
Geum rivale, L.
Sedum Telephium, L.
Galium tricorne, Stokes
Dipsacus pilosus, L.
Anthemis nobilis, L.
Scrophularia aquatica, L.,

sub-sp. umbrosa, Dumort.

Lathraea Squamaria, L.
Neottia nidus-avis, Rich.
Epipactis violacea, Boreau
— palustris, Crantz
Epipogum aphyllum, Sw.
Orchis pyramidalis, L.
Polygonatum multiflorum, All.
Convallaria majalis, L.
Eriophorum latifolium, Hoppe.
Carex axillaris, Good.
Hordeum sylvaticum, Huds.

#### 6. Frome

This district comprises the basin of the Frome brook and its tributaries on the east, and is drained by affluents of the Lugg on the west. On the south-east and north sides it is conterminous with districts 3, 4 and 5: on the west its boundary follows the line of the main roads from a point near Dormington through Withington, Felton, and Bodenham, near which place it takes the course of the Humber Brook as far as Steen's Bridge, where it turns eastwards. The area thus delineated is composed almost wholly of Old Red Sandstone, interrupted at Shucknall Hill upon the south by a wedge of Aymestrey rock. This hill forms the most interesting portion of the district from a botanical point of view, supporting as it does several rare mosses as well as flowering plants. Two of the latter usually to be reckoned only as introduced plants are here possibly native, the white horehound (Marrubium vulgare) and one of the stonecrops (Sedum reflexum var. albescens). This stonecrop is more common than the type throughout Herefordshire and often appears on rocks and in quarries at a distance from houses. On Shucknall Hill also grows the crested hair-grass (Koehleria cristata) which is very rare in the county: and several local brambles (Rubus anglosaxonicus, ericetorum sub-sp. sertiflorus, and serpens). The capreolate fumitory (Fumaria pallidiflora) is an abundant garden weed at Yarkhill, closely adjoining Shucknall; while still further to the east the monk's-hood (Aconitum Napellus) is found on the wooded banks of a stream near Munsley. Two rare brambles (Rubus hirtifolius and Bloxamii) are found near Ullingswick, the latter here alone in the county of Hereford. On the Humber Brook in the north-west of the district the green hellebore (Helleborus viridis) is clearly a native plant, and its position here is one of the chief reasons for giving it a native status throughout the county. The very local burnet rose (Rosa spinosissima) is abundant in hedges near Docklow both in this district and in the Leominster district (9). The following gives a fuller list:-

Ranunculus sardous, Crantz.
Helleborus viridis, L.
Aconitum Napellus, L.
Fumaria pallidiflora, Jord.
Rubus nemoralis, P. J. Muell.,
var. glabratus, Bab.
— Lindebergii, P. J. Muell.
— Salteri, Bab.

Rubus hirtifolius, Muell. & Wirtg.,
var. danicus (Focke)
— ericetorum, Lefv.,
sub-sp. sertiflorus (P. J.
Muell.)
— Bloxamii, Lees

— serpens, W. Rosa spinosissima, L. Sedum reflexum, L.,
var. albescens, Haw.
Hieracium sciaphilum, Oech.,
var. amplifolium, A. Ley
Marrubium vulgare, L.
Orchis pyramidalis, L.
Koehleria cristata, Pers.

### 7. Hereford

This district comprises the central plain of the county in the middle of which stands the city of Hereford. The boundaries, adopted beginning at the south-east, run from Mordiford westwards along the northern base of Aconbury Hill through the villages of Dewsall, Thruxton, and Kingstone to Tyberton and Preston-on-Wye: thence in a north-east direction through Byford, Bridge Sollers, Credenhill, Wellington, and Bodenham to England's Gate: thence south-east and southwards through Felton, Withington, and Bartestree to Mordiford. The area thus comprised consists mainly of alluvial drifts and gravels of the Wye together with the alluvium of the lower Lugg. There are numerous plants of interest in this district. Taking the Wye, the beautiful water crowfoot (Ranunculus fluitans) deserves first mention: on a tributary immediately adjoining the Wye the water avens and its rare hybrid (Geum rivale and intermedium) abound, also a willow (Salix triandra var. Hoffmanniana): the deadly night-shade (Atropa Belladonna) is found in the neighbourhood of the New Weir, and the alpine enchanter's night-shade (Gircaea alpina) and the field garlic (Allium oleraceum) quite near Hereford, and a rare sedge (Carex stricta) near Eaton Bishop. The Lugg system gives another rare water crowfoot (Ranunculus circinatus), the rare winter-cress (Barbarea stricta), the yellow water-lily (Nuphar luteum), parsley water-dropwort (Enanthe silaifolia), the arrow-head (Sagittaria sagittifolia), and the flowering rush (Butomus umbellatus). Numerous interesting brambles are found in some of the woods, notably those near Belmont and Rotherwas Park Wood, and the following are only a small selection from these: Rubus nemoralis var. glabratus, amphichloros, Drejeri and its var. Leyanus, oigoclados var. Newbouldii, obscurus, and rosaceus sub-sp. Purchasianus. Typical R. obscurus with its deep red flowers abounds in Belmont Wood, one of its two known stations in Britain. Here follows the fuller list :-

Ranunculus fluitans, L.

— circinatus, Sibth.

— trichophyllus, Chaix.

— Drouetii, Godr.

Aconitum Napellus, L.

Nuphar luteum, Sm.

Barbarea stricta, Andrz.

Trifolium fragiferum, L.
Anthyllis Vulneraria, L.
Lathyrus sylvestris, L.
Prunus Cerasus, L.
Rubus nemoralis, P. J. Muell.,
var. glabratus, Bab.
— amphichloros, P. J. Muell.

Rubus Salteri, Bab.

— mucronatus, Blox.

— Gelertii, Frider

— Drejeri, G. Jensen,
sub-sp. Leyanus (Rogers)

— oigoclados, Muell. & Lefv.,
var. Newbouldii, Rogers

Rubus ericetorum, Lefv.,
sub.-sp. sertiflorus, P. J.
Muell.
obscurus, Kalt.
rosaceus (sp. coll.),
sub-sp. Purchasianus, Rogers
Geum rivale, L.

Geum intermedium, Ehrh.
Circaea alpina, L.
Œnanthe silaifolia, Bieb.
Atropa Belladonna, L.
Salix triandra, L.,
var. Hoffmanniana, Sm.
Orchis incarnata, L.

Habenaria conopsea, Benth.
— viridis, R. Br.
Iris foetidissima, L.
Allium oleraceum, L.
Sagittaria sagittifolia, L.
Butomus umbellatus, L.
Carex stricta, Good.

#### 8. WEOBLEY

This is a tract of picturesque often wooded hills lying north-west of the Hereford district. From Bodenham on the east to Preston-on-Wye this district bounds upon district 7, thence it follows the line of the Wye to a point adjoining Willersley, from which village it runs north-east along the high road from Hay to Leominster: here it falls in with the boundaries of districts of and 6, and follows them until it reaches district 7 at England's Gate. The drainage of its eastern parts falls into the Lugg, that of the western into the Wye. The hills of the whole of the district are formed of Cornstone. The vegetation of this district repeats to some extent that of the adjoining Hereford district in the water-loving plants of the Wye and Lugg: the rare winter-cress (Barbarea stricta) occurs on the Wye near Bredwardine: a water crowfoot (Ranunculus pseudofluitans) in the Lugg at Hampton Court. In a tract of rough moorland near Mansell Gamage the greater spearwort (Ranunculus Lingua), the globe flower (Trollius europaeus) and the marsh helleborine (Epipactis palustris) used to be found and may still survive. The wooded cornstone hills abound in interesting brambles of which the names will be found in the accompanying list. Other rarities found upon them are the columnar-styled rose (Rosa systyla), the large-leaved lime (Tilia platyphyllos), the bloody cranesbill (Geranium sanguineum), the slender centaury (Erythraea pulchella), the juniper (Juniperus communis) and the blue iris (Iris foetidissima). A cornfield weed very rare in Herefordshire, the common mousetail (Myosurus minimus), has been found at Brobury and Bredwardine in this and the Golden Valley district, and at Chickward in the Kington district. The fuller list follows:—

Myosurus minimus, L.
Ranunculus fluitans, L.
— pseudofluitans, Hiern
— trichophyllus, Chaix
— Drouetii, Godr.
— Lingua, L.
— sardous, Crantz
Trollius europaeus, L.
Helleborus viridis, L.
— foetidus, L.
Nuphar luteum, Sm.
Barbarea stricta, Andrz.
Tilia platyphyllos, Scop.

Geranium sanguineum, L.
Rhamnus catharticus, L.
Astragalus glycyphyllos, L.
Lathyrus sylvestris, L.
Rubus nemoralis, P. J. Muell.,
var. glabratus, Bab.
— silvaticus, W. & N.
— infestus, W.,
var. virgultorum, A. Ley
— oigoclados, Muell. & Lefv.,
var. Newbouldii, Bab.

- ericetorum, Lefv.

Rubus fuscus, W. & N.,
var. nutans, Rogers
— fusco-ater, W.
Hieracium scanicum, Dahl.
Erythraea pulchella, Fr.
Atropa Belladonna, L.
Juniperus communis, L.
Epipactis palustris, Crantz.
Iris foetidissima, L.
Convallaria majalis, L.
Scirpus Caricis, Retz.
Eriophorum latifolium, Hoppe

#### 9. LEOMINSTER

This district comprises the tract lying north of the town of Leominster and extending to the Shropshire boundary. The southern boundary is defined by the high road leading from Grendon Bishop on the east to Leominster, and thence following the course of the River Lugg to Mortimer's Cross. On the west it is bounded by the high road from Mortimer's Cross to Richards Castle. The The whole district county boundary defines it on the north until it reaches the border of district 5. consists of the Old Red Sandstone, and is drained by the Stretford Brook and other small brooks through the Lugg into the Wye, with the exception of a small portion near Layster's Pole which drains into the Teme. Although the flora of this tract is not rich, several plants rare in the county are found in it. The rigid water crowfoot (Ranunculus circinatus) is abundant in the large pool at Berrington. The monk's-hood (Aconitum Napellus) was first discovered as a British plant on the Ledwyche brook at Little Hereford in this district about the year 1819. The common barberry (Berberis vulgaris) is possibly native in thickets near Kimbolton. The lesser chickweed-wintergreen grows in woods at Berrington; the rare figwort (Scrophularia umbrosa) is abundant both on the Teme at Little Hereford and on the Lugg near Mortimer's Cross. The beautiful form of marjoram (Origanum megastachyum) which is spread through Herefordshire was first discovered as a British plant by the late Rev. W. H. Purchas at Kinsham in this district (in 1852); the lesser butterfly orchis (Habenaria bifolia) is abundant near Berrington; in the same neighbourhood, at Middleton, the snowdrop (Galanthus nivalis) is apparently a true native; the common Solomon's seal (Polygonatum multiflorum) is native in a single wood near Leominster; while the crested hair-grass (Koehleria cristata) was recorded on Bircher Common near Yarpole. It is worthy of note that the foxglove

(Digitalis purpurea) is absent from the Leominster neighbourhood for several miles. Several local brambles occur in this district. The 'Leasow bramble' (Rubus virgultorum), which is far more abundant northwards in Shropshire than in any part of Herefordshire, was first discovered in the ash thickets locally termed leasows at Kimbolton. Rubus Lindebergii, likewise a northern form, and the rare form R. rubiginosus, are found in the same neighbourhood. The following is a full list:—

Ranunculus circinatus, Sibth.
Helleborus viridis, L.
Aconitum Napellus, L.
Berberis vulgaris, L.
Anthyllis Vulneraria, L
Lotus corniculatus, L.,
sub-sp. tenuis, Kit.
Onobrychis sativa, Lam.
Lathyrus sylvestris, L.
Rubus Lindebergii, P. J. Muell.
— infestus, W.,
var. virgultorum, A. Ley

Rubus fuscus, W. & N.,
var. macrostachys (P. J.
Muell.)
— fusco-ater, W.
— hirtus, W. & K. (sp. coll.),
sub-sp. rubiginosus (P. J.
Muell.)
— corylifolius, Sm.,
var. sublustris (Lees)
Rosa spinosissima, L.
Pyrola minor, L.

Scrophularia aquatica, L.,
sub-sp. umbrosa, Dumort.
Origanum vulgare, L.,
var. megastachyum (Link.)
Orchis pyramidalis, L.
Habenaria viridis, R. Br.
bifolia, R. Br.
Ophrys apifera, Huds.
Galanthus nivalis, L.
Polygonatum multiflorum, All.
Koehleria cristata, Pers.

#### IO. AYMESTREY

This district forms the extreme northern angle of the county. On the south-east it bounds on the Leominster district (9) from the county border at Ludlow to Mortimer's Cross; thence the boundary runs along the Hay, and afterwards the Presteign high roads, to the county boundary. Its whole north-west and northern sides are bounded by Radnorshire and Shropshire. The geological character of the district is almost entirely Silurian; it is drained by the Lugg on the south and the Teme on the north, both rivers flowing through deep gorges flanked by wooded hills. Shobdon Hill lies on the south, the hills of Deerfold Forest in the centre, and Bringwood Chase with the High Vinnalls on the north. The whole region is therefore one of great picturesque beauty. Its highest points are Reeve's Hill, 1,300 ft.; Harley's Mountain, 1,266 ft.; High Vinnalls, 1,235 ft.; Coles Hill, 1,097 ft. The chief characteristic of the vegetation of this district is the occurrence here first in Herefordshire of Welsh and Shropshire plants. Among the former are to be noted the climbing corydalis (Corydalis claviculata), the pansy (Viola tricolor), large flowered hemp-nettle (Galeopsis versicolor), and creeping forget-me-not (Myosotis repens). brambles are numerous and interesting, and many belong to the Welsh type: Rubus affinis, carpinifolius, incurvatus, Silurum and Selmeri belong to this category. Among plants more common in Shropshire are especially to be mentioned Forster's stonecrop (Sedum Forsterianum) and maiden pink (Dianthus deltoides), both of which are found on the Shropshire border of this district. Here also fall some brambles, especially Rubus infestus, with its variety virgultorum. Among plants meriting independent mention the asarabacca (Asarum europaeum), which has long been known at one station in Deerfold Forest, though with no claim to be considered native, stands first. The largeleaved lime (Tilia platyphyllos) seems to be native near Aymestrey, and has been largely planted in the gorge of the Teme at Downton. The bloody cranesbill grows also in this gorge, while the monk's-hood (Aconitum Napellus) is found at Sunny Gutter, near Ludlow. The following list of interesting plants is given :-

Ranunculus circinatus, Sibth. Aconitum Napellus, L. Corydalis claviculata, D.C. Viola tricolor, L. Dianthus deltoides, L. — plumarius, L. Tilia platyphyllos, Scop. Geranium sanguineum, L. Genista anglica, L. Trifolium striatum, L., var. erectum, Leight. Ornithopus perpusillus, L. Rubus sulcatus, Vest. - affinis, W. & N. - carpinifolius, W. & W. - incurvatus, Bab. - nemoralis, P. J. Muell., var. Silurum, A. Ley Lindebergii, P. J. Muell. Selmeri, Lindeb.

var. macrophylloides, (Genev.) - Sprengelii, W. — hypoleucus, Lef. & Muell. - hirtifolius, Muell. & Wirtg. - criniger, Linton - Gelertii, Frider — anglosaxonicus, Gelert. f. - infestus, W. f. var. virgultorum, A. Ley - Borreri, Bell Salt. - fuscus, W. & N., var. nutans, Rogers - pallidus, W. - rosaceus (sp. coll.), sub-sp. adornatus, P. J. Muell. — fusco-ater, W.

Rubus macrophyllus (sp. coll.),

Rosa mollis, Sm. Sedum Forsterianum, Sm., var. glaucescens, H. C. Wats. Viburnum Lantana, L. Dipsacus pilosus, L. Pyrola minor, L. Myosotis repens, G. Don Scrophularia aquatica, L., sub-sp. umbrosa, Damort. Origanum vulgare, L., var. megastachyum (Link) Galeopsis versicolor, Curt. Asarum europaeum, L. Juniperus communis, L. Habenaria viridis, R. Br. - bifolia, R. Br. Scirpus caricis, Retz. Alopecurus geniculatus, L., sub-sp. fulvus (Sm.) Phragmites communis, Trin.

- velatus, Lefv.

Geum rivale, L.

#### II. KINGTON

This district comprises the upper course of the River Arrow and its tributary brooks so far as they belong to the county of Hereford. Its short north-east side bounds on the Aymestrey district; its longer south-east side follows the high road from Shobdon to Bollingham chapel, whence it runs along the watershed in the same direction until it meets the county boundary on Brilley On its south-west and north-west sides it is bounded by the county of Radnor. Geologically speaking this district is a continuation of the Silurian rocks of the Aymestrey district, Stanner Rock with its exceedingly interesting geology and botany belongs to the county of Radnor. being excluded from Herefordshire by a few hundred yards only. Hergest ridge in this district rises to an elevation of 1,394 ft., Rushock to 1,137 ft. The prevailing type of vegetation in this area is again of a montane character, including also several bog and stream-side species very rare in Herefordshire. It possesses a rich bramble flora which again is of a prevailingly hill type. The following plants seem worthy of especial mention:—The hill meadow rue (Thalictrum montanum) has been found at one spot near Kington; in the same neighbourhood the globe flower (Trollius europaeus); the climbing corydalis (Corydalis claviculata) grows at Shobdon; shepherd's cress (Teesdalia nudicaulis), the vernal sandwort (Arenaria verna), the marsh stitchwort (Stellaria palustris), the lesser persicaria (*Polygonum minus*), and the white sedge (*Carex canescens*); all these, confined to a single station in Herefordshire, are found near Kington. The bog and stream-side species comprise the greater spearwort (Ranunculus Lingua), the bitter brook cress (Cardamine amara), the marsh St. John's-wort (Hypericum elodes), and the marsh cinquefoil (Potentilla Comarum). The full list follows :-

Thalictrum minus, L., var. montanum, Wallr. Myosurus minimus, L. Ranunculus circinatus, Sibth. - penicillatus, Hiern. — Lingua, L. Trollius europaeus, L. Aconitum Napellus, L. Nuphar luteum, Sm. Corydalis claviculata, DC. Fumaria purpurea, Pugsley Cardamine amara, L. Teesdalia nudicaulis, R. Br. Cerastium quaternellum, Fenzl. Stellaria palustris, Retz. Arenaria verna, L. Hypericum montanum, L. - elodes, L. Geranium sanguineum, L. Rhamnus catharticus, L.

Rubus plicatus, W. & N., var.hemistemon(P.J.Muell.) - carpinifolius, W. & N. - nemoralis, P. J. Muell., var. glabratus, Bab. var. Silurum, A. Ley - Lindebergii, P. J. Muell. - dumnoniensis, Bab. - mercicus, Bag., var. bracteatus, Bag. var. chrysoxylon, Rogers - Selmeri, Lindeb. - leucandrus, Focke - silvaticus, W. & N. - macrophyllus (sp. coll.), var. macrophylloides (Genev.) - Sprengelii, W. - hypoleucus, P. J. Muell. - hirtifolius, Muell. & Wirtg., var. danicus (Focke)

Rubus mucronatus, Blox. f. mucronatoides, A. Ley melanoxylon, Muell. & Wirtg. - infestus, W. - ericetorum, Lefv. - scaber, W. & N. - fuscus, W. & N., var. nutans, Rogers - longithyrsiger, Bab., var. botryeros, Rogers - rosaceus (sp. coll.), var. silvestris, R. P. Murr. - velatus, Lefv. Potentilla palustris, Scop. Jasione montana, L. Scutellaria minor, Huds. Polygonum minus, Huds. Carex canescens. L. Alopecurus geniculatus L., sub-sp. fulvus, Sm.

#### 12. PEMBRIDGE

This is a long narrow district stretching in a north-easterly direction from the Wye to the Lugg. It is bounded on the north-west by districts 10 and 11, and on the south-east by district 8. Geologically it belongs entirely to the Old Red Sandstone, rising where it bounds on district 11 at Brilley Mountain to 1,000 ft. Some plants rare in Herefordshire are found in this district. The common horsetail (Hippuris vulgaris) and a rare pond-weed (Potamogeton plantageum) are found in the Pinsley Brook, an affluent of the Lugg; a rare hawk-weed (Hieracium rigidum, var. scabrescens) has been found near Brilley; the wood stitchwort (Stellaria nemorum), and the knotted spurrey (Sagina nodosa) occur in this district; the bramble flora is characterized by the great abundance and luxuriance of Rubus ericetorum, especially near Eardisley. Rubus nitidus at Shirl and Rubus viridis at Winforton Wood are continued these stations in the county. The latter-named station deserves mention as remarkable for a rich and interesting bramble flora. The following list is given:—

Ranunculus fluitans, L.
— penicillatus, Hiern.
Stellaria nemorum, L.
Sagina nodosa, Fenzl.
Rhamnus catharticus, L.
— Frangula, L.
Genista anglica, L.

Lathyrus sylvestris, L.
Rubus nitidus, W. & N.
— affinis, W. & N.
— carpinifolius, W. & N.
— incurvatus, Bab.
— nemoralis, P. J. Muell.,

Rubus mercicus, Bag.,
var. bracteatus, Bag.
var. chrysoxylon, Rogers
— Selmeri, Lindeb.
— leucandrus, Focke.
— thyrsoideus, Wimm.

var. Silurum, A. Ley — silvaticus, W. & N.

Rubus oigoclados, Muell. & Lefv.,
var. Newbouldii, Bab.
— ericetorum, Lefv.
— pallidus, W. & N.
— rosaceus, W. & N.,
var. hystrix, (W. & N.)
sub-sp. adornatus (P. J.
Muell.)
— viridis, Kalt.

Rubus serpens, W.

— corylifolius, Sm.,
var. sublustris (Lees)
Hippuris vulgaris, L.
Circaea alpina, L.
Anthemis nobilis, L.
Hieracium rigidum, Hart.,
var. scabrescens, Johanss.

Scrophularia aquatica, L.,
sub-sp. umbrosa, Dum.
Limosella aquatica, L.
Salix fragilis, L.,
var. decipiens, Hoffm.
Ophrys apifera, Huds.
Convallaria majalis, L.
Potamogeton plantagineus, Ducros.

#### 13. GOLDEN VALLEY

This district consists principally of the Golden and Grey Valleys along with the ranges of hills on both sides. Lying between the valley of the Wye on the north-east and the Black Mountain on the south-west it exhibits an intermediate character in lower hills and somewhat shallow valleys parallel to the Black Mountain ranges. Its actual boundaries are somewhat difficult to define, owing to the absence of main roads in the district; but it may be defined with sufficient exactness for the present purpose by saying that its south-west boundary is represented by a line drawn from Pontrilas on the south-east to Clifford on the north-west. The northern boundary is formed by the Wye from Clifford Castle to Preston on Wye; on the north-east and south-east it The chief drainage is effected by the Dore Brook, a tributary of the borders on districts 7 and 8. Geologically this is a district of Cornstones, Sandstones, and denuded valleys. Its highest point is reached at Meerbatch Hill near Dorstone in 1,045 ft. The character of its flora is mainly sub-montane, as instanced in the globe-flower (Trollius europaeus), the knotted spurrey (Sagina nodosa), the true soft-leaved rose (Rosa mollis), the ivy-leaved bell-flower (Wahlenbergia hederacea), the creeping forget-me-not (Myosotis repens), and the lesser butterfly orchis (Habenaria bifolia), which are found here. The interest of its vegetation is not, however, confined to these; the true dogviolet (Viola canina) is found; the large-leaved lime (Tilia platyphyllos) is apparently native in more than one of its large woods; two rare clover forms have been found (Triforium repens, var. Townsendii and Trifolium fragiferum); the alpine enchanter's night-shade (Circaea alpina) is plentiful in a wood overhanging the Wye; the beautiful spreading bell-flower (Campanula patula), which is found all through Herefordshire, is in some parts of this district exceedingly plentiful. Old marshy poolbeds occur in several places, notably in Moccas Park, in which a vegetation formerly more general lingers; the larger bladder-wort (Utricularia vulgaris) used to be abundant in one of these pools but is now extinct; in another the golden dock (Rumex maritimus) was found, and will probably recur in favouring seasons; in another the greater spearwort (Ranuculus Lingua), and in several the tufted sedge (Carex stricta) is very abundant. The slender centaury (Erythraea pulchella) is found in wood walks near Whitfield and at Dulas. The set of brambles met with in the Whitfield woods is of great interest; the 'Big wood' here is full of a form not yet elsewhere discovered (Rubus amplifrons), while others (Rubus minutiflorus and tereticaulis) are of scarcely inferior The full list follows :-

Myosurus minimus, L. Ranunculus fluitans, L. - Lingua, L. Trollius europaeus, L. Viola canina, L. Cerastium quaternellum, Fenzl. Sagina nodosa, Fenzl. Tilia platyphyllos, Scop. Trifolium repens, L., var. Townsendii, Bab. - fragiferum, L. Rubus nemoralis, P. J. Muell., var. Silurum, A. Ley - macrophyllus (sp. coll.), var. macrophylloides, (Genev.) - anglosaxonicus, Gelert, sub-sp. setulosus, Rogers - rudis, W. & N.

Rubus Babingtonii, Bell Salt. - ericetorum, Lefv. -- scaber, W. & N. - pallidus, W. - viridis, Kalt. - acutifrons, A. Ley, var. amplifrons, A. Ley — hirtus, W. & N. - minutiflorus, P. J. Muell. tereticaulis, P. J. Muell.dumetorum, W. & N., var. britannicus (Rogers) Geum rivale, L. Rosa mollis, Sm. Chrysosplenium alternifolium, L. Circaea alpina, L. Jasione montana, L. Wahlenbergia hederacea, Reichb.

Campanula patula, L. Erythraea pulchella, Fr. Anagallis tenella, L. Myosotis repens, G. Don Lathraea Squamaria, L. Mentha rotundifolia, Huds. Rumex maritimus, L. Neottia Nidus-avis, Rich. Orchis incarnata, L. Habenaria conopsea, Benth. - bifolia, R. Br. Scirpus lacustris, L. Eriophorum latifolium, Hoppe Carex stricta, Good. - distans, L. — Pseudo-cyperus, L. Alopecurus geniculatus, L., sub-sp. fulvus, Sm.

#### 14. BLACK MOUNTAIN

This embraces the extreme western portion of Herefordshire and is bounded by the Golden Valley district on the north-east, Monmouthshire on the south-east, Breconshire on the south-west and west, and a small portion of Radnorshire on the north. It is the single mountain district

comprised in the county, consisting for the most part of elevated ridges, intersected by deep valleys. As originally delineated, it was formed to embrace the outlying valley of Monmouthshire in which the hamlet and abbey of Llanthony lie, in addition to the isolated portion of Herefordshire (about six miles long) lying in the Grwyne valley. It has been thought best for the sake of bringing the whole of the mountain flora into a single review to embrace in this paper also the Breconshire portions of the Black Mountain system as far as the Grwyne Fawr River on the south-west and the flank of the hills on the north-west. This brings in the whole valleys of the Monnow, Honddu. and Grwyne with their intervening ridges at the Hatterell and the Ffwddog Hills, and comprehends the whole of the mountain flora. These ridges reach an elevation of 2,306 ft. on the Hatterell hill. 2,228 ft. on the Ffwddog, and comprise within the area here in view some 12 to 14 miles in length of ground over 2,000 ft. in elevation. The highest elevation of the system is reached in the Pen-y-gader range outside our boundary (2,660 ft.), but its inclusion would not, it is believed, add anything to the flora of the region. The whole of the parallel ranges with their intersecting valleys lie north-north-west to south-south-east, the drainage being to the latter point. All the streams fall into the Wye through the Monnow, with the exception of the Grwyne which falls into the The whole region is one of Old Red Sandstone, and this in its higher parts frequently breaks into low cliffs, locally termed 'darens,' which when facing north or north-east afford homes for many of the rarer plants of the district. The flora is, as might be expected, almost wholly of a montane and sub-montane character, and may be called fairly rich, especially in mosses and hawk-The beautiful bird-cherry (Prunus Padus) is abundant in the mountain valleys. Ling (Calluna vulgaris), cross-leaved heath (Erica Tetralix), crowberry (Empetrum nigrum), whortleberry and cowberry (Vaccinium Myrtillus and Vitis-idaea) are among the universally distributed mountain plants which are found on all the higher grounds. It is remarkable that the common heath (Erica cinerea) seems to be entirely absent, not only from this region, but also from all the higher moorlands and heaths of South Wales. A form of Lenormand's crowfoot (Ranunculus Lenormandi), making a near approach to the rare south-country Ranunculus intermedius, is common in springy places; the three cotton grasses and the tufted club-rush (Eriophorum vaginatum, angustifolium, and latifolium, and Scirpus caespitosus) are abundant in boggy peat; the beautiful butterwort (Pinguicula vulgaris) is common, as is also the creeping forget-me-not (Myosotis repens). More rare but still fairly abundant are the buck-bean (Menyanthes trifoliata), the tufted spurrey (Sagina nodosa), the round-leaved sundew (Drosera rotundifolia), and the green-ribbed sedge (Carex binervis); while the Lancashire asphodel (Narthecium Ossifragum), the mountain pansy (Viola lutea), the mountain everlasting (Antennaria dioica), and the shore-weed (Litorella lacustris) are exceedingly rare. A group of rare or local hawk-weeds (Hieracium), for the names of which the subjoined list may be consulted, make the darens a happy hunting-ground for the specialist; and here also plants of more general interest, such as the Welsh poppy (Meconopsis cambrica), the wood cranesbill (Geranium sylvaticum), the burnet, the sabine, and the true soft-leaved roses (Rosa spinosissima, involuta, and mollis), are found, and the mossy saxifrages (Saxifraga hypnoides and sponhemica). Here also a grass occurs of great rarity (Poa Parnellii). The valley of the Honddu is remarkable for the abundance of its alternate-leaved golden saxifrage (Chrysosplenium alternifolium), that of the Grwyne for the sweet cicely (Myrrhis odorata), which follows the stream-side thickets for some miles and may be reckoned native there if anywhere in Britain. One of our rarest Herefordshire orchids, Habenaria albida, is found both in the Grwyne and Cusop valleys and has been detected hybridizing with the sweet orchis (Habenaria conopsea). Cusop valley is the only known Herefordshire station for the mountain-vetch (Vicia Orobus) and the boggy hills above it for the creeping willow (Salix repens): the field gentian (Gentiana campestris) has been detected at Llanthony, and the heads of the Monnow and its tributary brooks support a great abundance of the globe flower (Trollius europaeus). Once found in the county near Rowlstone in this district, and always subsequently sought in vain, is the lesser flea bane (Inula Pulicaria). The full list is now given :-

Ranunculus Lenormandi, F.
Schultz.
Lingua, L.
sardous, Crantz.,
var. parvulus (L.)
Trollius europaeus, L.
Meconopsis cambrica, Vig.
Viola lutea, Huds.
Polygala oxyptera, Reichb.
Stellaria nemorum, L.
Sagina nodosa, Fenzl.
Geranium sylvaticum, L.
Ornithopus perpusillus, L.
Vicia Orobus, DC.

Prunus Padus, L.
Rubus Lindebergii, P. J. Muell.
— sciaphilus, Lange
— silvaticus, W. and N.
— macrophyllus, W. and N.
— rudis, W. and N.
— dumetorum, W. and N.,
var. britannicus (Rogers)
Geum rivale, L.
Rosa spinosissima, L.
— involuta, Sm.
— mollis, Sm.
Saxifraga hypnoides, L.
var. sponhemica, Gmel.

Chrysosplenium alternifolium, L.
Drosera rotundifolia, L.
Myrrhis odorata, Scop.
Antennaria dioica, R. Br.
Pulicaria vulgaris, Gaertn.
Hieracium rubicundum, F. J.
Hanb.
— pellucidum, Laest.
var. lucidulum, A. Ley
— subulatidens, Dahl.
var. cuneifrons, A. Ley
— platyphyllum, A. Ley
— euprepes, F. J. Hanb.

Hieracium sciaphilum, Uech.,
var. strumosum, A. Ley
var. amplifolium, A. Ley
— septentrionale, Arv. Tou.
— scanium, Dahl.,
var. serpentinum, F. J.
Hanb.
— rigidum, Hart.,
var. Friesii, Dahl. f.
— praenanthoides, Vill.
— umbellatum, L.
Jasione montana, L.
Vaccinium Vitis-Idaea, L.
— Myrtillus, L.

Calluna vulgaris, Salisb.
Erica Tetralix, L.
Anagallis tenella, L.
Gentiana campestris, L.
Menyanthes trifoliata, L.
Myosotis repens, G. Don.
Veronica serpyllifolia, L.,
var. humifusa (Dicks.)
Pinguicula vulgaris, L.
Litorella lacustris, L.
Empetrum nigrum, L.
Orchis incarnata, L.
Habenaria conopsea, Benth.
— albida, R. Br.
— viridis, R. Br.

Habenaria bifolia, R. Br.
Narthecium Ossifragum, H.ds.
Scirpus pauciflorus, Lightf.
— caespitosus, L.
Eriophorum vaginatum, L.
— angustifolium, Roth.
— latifolium, Hoppe.
Carex stricta, Good.
— laevigata, Sm.
— binervis, Sm.
Alopecurus geniculatus, L.,
sub-sp. fulvus, Sm.
Poa nemoralis, L.,
var. Parnellii, Hook. & Arn.
Festuca sylvatica, Vill.

#### CRYPTOGAMIA VASCULARIA

FILICES (Ferns and Fern Allies)

The ferns of Herefordshire (reckoning the species and sub-species recognized by Hooker in the Student's Flora with two additions to be explained below) number twenty-eight; and in addition to these, nine varieties more or less satisfactory and well marked are here mentioned. This gives a fairly long list: yet it must be admitted that the fern flora of the county is not a rich one. The climate is too dry to admit of a vigorous growth of those plants, and moreover it is becoming drier through progressive denudation of timber and other causes, and the fern flora is consequently shrinking or dying out. As an instance of this the Tunbridge filmy fern (Hymenophyllum tunbridgense), which was an inhabitant of the Ross district in 1883, has since that time disappeared, not through depredation, but entirely through climatal change. The fern and moss flora is decidedly richer in the western than in the eastern regions of the county. The species and varieties are now mentioned in order; a few remarks on their distribution in the county being added in each case.

Hymenophyllum tunbridgense, Sm.
(Tunbridge filmy fern).
Limited to a single locality
in the Ross district and now
extinct

— unilaterale, Willd. (Wilson's filmy fern); District 14. One known locality in the Black Mt. in very small quantity

Pteris aquilina L. (Brake). Universal in the county

Lomaria Spicant, Desv. (Hard fern). Universal in woods Asplenium Ruta-muraria L. (Wall rue). Universal on walls and occasionally rocks

> var. elatum, Moore. Limestone rocks on the Great Doward

 trichomanes (Maidenhair spleen wort). As the last and equally common

var. anceps, Soland. Sandstone rocks in the *Black Mountain* (14)

A form with deeply incised pinnules, is common on dry shady limestone

 viride, Huds. (Green-stalked spleenwort), Black Mt. (14) in several localities: unknown elsewhere

- Adiantum-nigrum, L. (Black

spleenwort). Universally distributed, but not abundant: often simulating the lanceolate spleenwort in form of frond

Athyrium Filix-faemina, Bernh. (Lady fern). All through the county

woods

The var. rhaeticum, Roth. in boggy places; var. molle, Roth. In dry

var.incisum, Hoffm. Common in shady hilly woods

R Sub-sp. Watsoni, Lyme. A plant answering admirably to Watson's specimens of this rare fern was gathered by the writer in the Black Mt. region (14). (Additional to Student's Flora)

Ceterach officinarum, Desv. (Scaly hart's tongue). Rare in the east, common in the west of the county: luxuriant in parts of districts (1) and (13)

Scolopendrium vulgare, Sm. (Hart's tongue). Throughout the county; locally abundant in shady, rocky places

Cystopteris fragilis, Bernh. (Brittle

fern). Abundant in the Black Mt. (14); known at one station in the Ludlow neighbourhood (10)

The unsatisfactory varieties dentata, Hook, and angustata, Sm., are both found in the Black Mt. region

Aspidium aculeatum, Sm. including var. lobatum (Sm.) (Common shield-fern). Abundant throughout the county. A. lobatum far the most common; the form aculeatum rare

A plant answering to var. lonchitidiodes is not rare on the darens of the Black Mt. (14), but has not been detected there fruiting

 angulare, Willd. (Soft shieldfern). Universally distributed and abundant

Nephrodium Filix-mas, Rich.
(Male fern). Type universal and very common. The form called var. affinis, Fisch., often occurs on shady lane hedges

var.Borreri, Newm.Abundant and well marked on mountain sides in *Black Mt.* (14); found also in many other districts

Nephrodium spinulosum, Desv. (Narrow buckler fern). Rather rare but recorded in six districts

> var. elevatum. In old pool beds, rare (district 11)

> var. exaltatum. In woods damp or dry; the common form

dilatatum, Desv. (Broad fern).
 Universal throughout the county

var. genuinum. In old pool beds and wet woods, rare

vir. tanacetifolium. The common form

— glandulosum (Bennett's fern).

I have ventured to give this a separate number as a subspecies although placed as a var. under N. dilatatum by Hooker. Rare, in wet woods; always in company with N. spinulosum and dilatatum. Four or five stations are known for this fern (districts 3, 11, 13 and 14) in the county. Long extinct at the station where it was discovered by Mr.

Alfred Bennett, the writer believes it to exist at more than one station in West Gloucester, Monmouth and Brecon

Nephrodium aemulum, Baker (Hay-scented fern). Only in the Ross district (2) and there extremely local

 Thelypteris, Desv. (Marsh fern). At a single station in the Black Mt. (14); and there in great danger of extermination

Oreopteris, Desv. Hill and mountain banks, unknown in the east of the county; fine and abundant in the Black Mt. (14)

Polypodium vulgare, L. (Polypody). Common throughout the county

var. serratum, Willd. Lane hedges at one station in the Ross dis-

trict (2)

— Phegopteris, L. (Beech fern). Known in three districts (1, 10 and 14). Very fine near hill brooks at several stations in the Black Mt. (14), in which district it is also frequent among stones on the mountain sides

Polypodium Dryopteris, L. (Oak fern). Known also in three districts (2, 10 and 14). In the Black Mt. (14) it is found with the last upon the hill sides

-- Robertianum, Hoffm. (Limestone fern). Only known
on the Great Doward (2)
and the Black Mt. (14).
It is remarkable that the
limestone fern occurs in great
luxuriance among loose rocks
under more than one of the
darens of the Black Mt.
although exclusively of sandstone formation

Osmunda regalis, L. (Royal fern).

Found in two districts (11 and 14); in the latter now exterminated

Ophoglossum vulgaum, L. (Adders' tongue). Found throughout the county, and locally common

Botrychium Lunaria, Sm. (Moonwort). Rare and seldom found, but recorded in ten of the fourteen districts of the county

#### Equisetaceae and Lycopodiaceae

These orders are represented in Herefordshire by six Equisetums and three Lycopodiums; one of the latter, however, being only found in the portion of Breconshire which here comes under review. They are as follows:—

Equisetum arvense, L. (Common horsetail). Common and recorded from every district

— maximum, Lam. (Great horsetail). In swampy woods, not common. In 9 out of the 14 districts

— sylvaticum, L. (Wood horsetail).
 Locally common in wet clay fields and woods, 9 districts

palustre, L. (Marsh horse-tail).
 Common in swamps and marshy meadows; record-

ed in all the districts except (13)

Equisetum limosum, L. (Smooth horsetail). In pool margins rather common; recorded from 6 districts

— hyemale, R. (Rough horse-tail). In boggy copses, rare. Known only at two isolated stations in the Ross (2) and Bromyard (5) districts

Lycopodium clavatum, L. (Common club moss). Rare in *Herefordshire*. Found only at one or two stations in the Aymestrey (10), Kington (11), and Btack Mt. (14) districts. Suprisingly rare on the Black Mt.

Lycopodium alpinum, L. (Alpine club moss). Known only at a single station on the northern flank of the Black Mt. above Hay, Breconshire

— Selago, L. (Fir club moss).
Rare and only in the Black
Mt. (14)

# MUSCI (Mosses)

Up to the present date (1905) no fewer than 632 species and sub-species of mosses have been recorded for the British Islands. The natural features of Herefordshire are such as to give rise to a rich moss-flora, and 324 species have been observed in the county. Its mosses had been worked with such thoroughness by the authors of the *Flora* of the county, that since 1889, when it first appeared, further investigation has resulted in the addition of only fifty species to the list given with localities and interesting notes in that work.

It is to be regretted that the Hepaticae, never much in evidence in this somewhat dry climate,

have not as yet found a systematic student.

With the exception of swampy ground which is scarce, favourable habitats of mosses are general in the county. As full information on its geology has been already given in this volume, it will be only necessary to observe here that, as might be expected, the mosses are found to be

characteristic of limestone and sandstone formations. The latter attains an altitude of upwards of 2,000 ft. in the Black Mountain. There we find sub-alpine conditions, as also to some extent in those wooded hills which occur over large areas in the north and north-west. Mention must also be made of the shaded conglomerate rock on the borders of the Forest of Dean. A notable feature of the county is the River Wye, which, like the smaller Lugg and Arrow, drains pastoral lands diversified by frequent hills and woods.

These, briefly, comprise the main features of interest to the bryologist. Since in every county there are a number of generally common mosses, it would seem sufficient to give here a list of rare and interesting species recorded for Herefordshire. The nomenclature is that adopted in the second

edition of Mr. Dixon's excellent Handbook of British Mosses.

Five common species Sphagna. occur locally

Pogonatum nanum, P. Beauv. Rather rare

Polytrichum alpinum, L. Occasionally in the Black Mt.

- gracile, Dicks. Moseley Mere, in small quantity

Diphyscium foliosum, Mohr. Nr. Kington and in Black Mt.

Archidium alternifolium, Schp. Occasionally in wet meadows and heathy banks

Pleuridium. The three species are found in the county

Ditrichum tenuifolium, Lindb. On mud by a pond, Moccas
(Rev. A. Ley). Rare
Seligeria Doniana, C. M. Gt.
Doward and Carey Wood in

1890 and 1893 (Ley)

- pusilla, B. & S. and acutifolia, Lindb. Shady limestone on the Dowards; Ley, 1891, 1898

Brachyodus trichodes, Fürnr. Black

Rhabdowesia fugax, B. & S. In one or two stations in the Black Mt. in 1880 and 1886 (Ley)

Cynodontium Bruntoni, B. & S. Locally abundant in the south of the county on sandstone and conglomerate rocks

Dicranella secunda, Lindb. Very rare. Grove Wood, Pembridge (Crouch)

- Schreberi, Schp. Rather rare. Bare earth and river banks

Dicranum fuscescens, Turn. On sandstone and conglomerate rocks. Confined to the Ross district

- Scottianum, Turn. Conglomerate rocks. Huntsham Hill,

Fissidens incurvus, \( \beta \) tamarindifolius, Braithw. On damp clay of a river-bank at Caplar, 1891 (Ley)

Grimmia apocarpa, β alpicola, H. & T. Rocks in R. Wye, Bredwardine

- subsquarrosa, Wils. The North Hill, Malvern, 1887 (Ley)

Grimmia Doniana, Sm. One station in the Black Mt. (Ley)

- commutata, Hübn. Common on stone roofs principally in the west of the county. The same applies to Gr. leucophaea, Grev.

- montana, B. & S. In several districts there occurs a Grimmia which must be referred to this species, but it is not typical

Rhacomitria. Five species are found, more especially in the Black Mt. district

Hedwigia ciliata, γ viridis, B. & S. A somewhat robust, dark green form occurs covering old stone roofs here and there in the west

Phascum Floerkeanum, W. & M. Very rare. On bare soil near Mordiford, 1880 (Ley)

- curvicolle. Not uncommon on limestone

Pottia caespitosa, C. M. This rare and distinct species occurs at Fownhope and Shucknall. Perhaps the most interesting of the Herefordshire mosses, as it occurs elsewhere only in Sussex

Tortula 1 pusilla, Mitt. Rare. A very interesting form occurs at Breinton

- cuneifolia, Roth. On stiff soil and banks in sunny situations in the west of the county, Eardisley, Breinton, Moccas Scaur.

- Vahliana, Wils. Rare. Occasionally associated with the last-mentioned. On anthill on Gt. Doward, 1889 (Ley). Breinton and Bishopstone

- marginata, Spruce. On shady rocks and stones, chiefly sandstone. Rare and local. King's Caple, Sellack, Gt. Doward (Ley)

 subulata, β inermis, Wils.
 Very rare. On a willow, nr. Hereford (Ley)

<sup>1</sup> Dixon's *Handbook* (ed. 2), p. 193.

Tortula angustata, Wils. Rare King's Caple (Ley). Breinton. Hedge-banks

Barbula rubella, Mitt. dentata. Schp. In the gorge of the Teme, Dozunton, 1889 (Ley)

- gracilis, Schw. Nash Scar, nr. Presteign, on stony ground, and sparsely in a few other localities. Not common, but easily overlooked

Weisia crispa, Mitt. On bare Gt. Doward, and ground. nr. Hereford (Ley). Eardisley

- multicapsularis, Mitt. Very rare. Fownhope, 1887 (Ley)

— squarrosa, C. M. Crom-y-oy, 1874 (Ley). Gwmma Moor, Eardisley. On bare soil and on ant-hills in plenty

- crispata, C.M. Apparently rare. Nash Scaur, Presteign, on dry limestone rock

- tenuis, C. M. Sandstone, St. Weonards, Sellack, and Gt. Doward (Ley)

- calcarea, C. M. Gt. Doward, Backbury. Fruiting at the Doward in 1892 (Ley)

Pleurochaete squarrosa, Lindb. Gt. Doward, on stony ground.

Encalypta ciliata, Hoffm. On mountain rocks. Occurs in two Herefordshire localities in the Black Mt. (Ley)

- streptocarpa, Hedw. Fertile on Gt. Doward, 1884 (Ley) Ulotae. Scarcely more than traces of the commoner species

Orthotrichum rivulare, Turn. Not common. Rocks by R. Wye

- Sprucei, Mont. Plentiful on trees on banks of R. Wye

- tenellum, Bruch. Rare. On trees

- obtusifolium, Schrad. rare. On trees (Ley)

Schistostega osmundacea, Mohr. Rare and very local. Red sandstone conglomerate, Hope Mansel (Ley)
Funaria calcarea, Wahl.

Rare. Little Doward and Backbury (Ley)

Bartramia Oederi, Swartz. Black Mt. (Ley)

Bartramia Halleriana, Hedw.

Llanthony valley

Philonotis capillaris, Lindb. Rare.

Nash Scaur, Presteign and nr.

Ludlow. On bare soil in
hilly situations

 calcarea, Schp. Plentiful and fertile throughout the Black Mt. district

Breutelia arcuata, Schp. Black Mt.
Rare and barren (Ley)

Webera Tozeri, Schp. Moist river banks. *Breinton* and *Clifford*, by the *Wye*. Sterile

Plagiothecium Žierii, Lindb. Black Mt. locally abundant (Ley) Bryum filiforme, Dicks. Black Mt.

Scarce and barren (Ley)
— concinnatum, Spruce. Black

Mt.

- lacustre, Brid. In the sand of Grwyne. Rare (Dixon)

— turbinatum, Schw. R. Grwyne.
River bank at Gt. Doward.
Small and barren (Ley).
Other stations on the Wye
are also recorded

 caespiticium, L. Var. imbricatum, B. & S. Little Doward

Hill (Ley)

provinciale, Philib. Limestone
 rocks in woods, occasionally
 fertile (Ley). Found also
 in hedge-banks

Donianum, Grev. Hedgebanks.
 Rare. Fertile at *Dadnor*,
 Ross (Miss E. Armitage)

- rubens, Mitt. On recently disturbed mould in woods.

Rare. Probably often overlooked. Winforton Wood

- gemmiparum, De Not. In the Grwyne, abundantly (Ley)

 roseum, Schreb. Not uncommon. Beautifully fertile in a wood at Mordiford, 1904 Mnium orthorrhynchum, B. & S. On old alder boles nr. *Pont Esgob*, 1890 (Ley)

— riparium, Mitt. On stumps of trees covered with mud by a ditch. Willersley, Gt. Doward. A rare and little known species and not easily detected when present

Fontinalis seriata, Lindb. First found in Britain in R. Wye nr.

Winforton, 18952

Cryphaea heteromalla, Mohr. Strangely uncommon in the county. Found occasionally in old hedges

Neckera pumila, Hedw. Very rare. Trees in damp woods

Leucodon sciuroides, Schw. In fruit at Sellack, 1880 (Ley)

Myrinia pulvinata, Schp. On trees subject to inundation. Between Clifford and Letton (Ley). A rare species

Heterocladium heteropterum, B. & S. Occasionally in subalpine districts of the county. Var. β fallax, Milde. Not uncommon on stones in damp places. Brilley, Gt. Doward, &c.

Pylaisia polyantha, B. & S. On thorn, hazel, &c., in old woody hedges in several localities. Generally rare

Eurhynchium speciosum, Schp.
Pool and well sides. Very
rare. King's Caple, Gt.
Doward (Ley)

— abbreviatum, Schp. First discovered in this county by Rev. A. Ley. Found to be generally common in Herefordshire, principally on shady banks on light soil, also in woods

Eurhynchium circinatum, B. & S. On limestone rocks. Very rare in this county

 striatulum, B. & S. Shady limestone rocks and woods.
 Rare. Gt. Doward, Huntsham Hill (Ley)

Plagiothecium latebricola, B. & S. On rotting stumps, principally alder, in damp and shady places. Rare

Amblystegium juratzkanum, Schp.
Only recently understood in
Britain. Not uncommon on
rotting sticks and stones in
damp places

damp places

— Sprucei, B. & S. Rocks in the

Grwyne valley, Gt. Doward

Rare (Ley)

 fluviatile, B. & S. In the Garron, Teme, and Wye. Exposed to view only during drought. Not common

varium, Lindb. Not uncommon on rotting sticks and on willows in swampy, wooded places

Hypnum Sommerfeltii, Myr. Plentiful on shaded limestone, Gt. Doward. Otherwise rare

--- vernicosum, Lindb. Recorded from nr. *Malvern*, nr. *Dorstone*, and *Llanthony* (Ley). Rare

Hylocomium squarrosum, var. β
calvescens, Hobk. This
beautiful and rare moss
occurs in a very damp wood
nr. Brilley. Splendid specimens were found, surpassing
any seen from the north. A
most interesting find for the
county

— rugosum, De Not. Extremely rare. Gt. Doward

(Ley)

#### **FUNGI**

In January, 1889, the Rev. William Henry Purchas and Rev. Augustin Ley published their invaluable Flora of Herefordshire, and Dr. M. C. Cooke and Mr. W. Phillips were responsible for the list of Fungi enumerated therein. The basis of this list was originally compiled by the late Dr. H. G. Bull, and it is to be regretted that many species recorded in the Transactions of the Woolhope Club and Greviliea as having been found at their annual fungus forays, which were commenced in 1868, were omitted from it. This omission has now been rectified, and all such records added to the present list together with all additions appearing therein since the publication of the Flora of Herefordshire and the completion of Cooke's Illustrations of British Fungi. In 1902 the British Mycological Society held their annual week's fungus foray from 22 to 27 September at Hereford on the invitation of the Woolhope Naturalists' Field Club, when several additions were made to the Herefordshire list of Fungi. By the kind permission of the late Mr. J. H. Lutley I have on many occasions investigated the rich fungus flora of the Brockhampton estate, situate near Bromyard, and some other additions to the list are recorded in the Transactions of the Worcestershire Naturalists' Club. Where the name of an Agaric is preceded by an asterisk in the subjoined list it indicates that

For further remarks, see Dixon, ad loc.

<sup>&</sup>lt;sup>3</sup> For complete list of Fungi gathered at this foray see Trans. Brit. Myc. Soc. 11, 5-12.

the species is painted from a Herefordshire specimen in Cooke's *Illustrations of British Fungi*, and the conidial, aecidial or uredal state is only enumerated when the more perfect and higher condition of the same plant has not been recorded for the county, whereas the list in the *Flora of Herefordshire* enumerates all these forms separately. For the purpose of comparison we have set out under the different groups the numbers as recorded in the *Flora of Herefordshire*, and the present list and those recorded for Worcestershire and Gloucestershire.

										List in the Flora of Herefordshire	Present List for Herefordshire	Worcestershire List	Gloucestershire List
Basidiomycetae Uredinaceae and Ascomycetae . Phycomycetae . Deuteromycetae Hyphomycetae Myxomycetae .	Us ·	tila • •	gi <b>n</b> •	acea •		•	•			53 224 2 52	899 71 291 13 46 92	713 65 139 13 13	619 64 316 16 39 56
	•				٠	•	•	•	•	1,097	27 	1,016	1,135

#### BASIDIOMYCETAE

# HYMENOMYCETAE

#### AGARICACEAE

- Amanita phalloides (Vail.), Fr.

  Haywood Forest, Holme Lacy,
  Dinmore, Eastnor, Whitcliffe,
  Brockhampton
  - verna, Lam. Downton
  - mappa (Batsch.), Fr. Haywood Forest, Downton, Dinmore, Eastnor, Whitcliffe
    Woods, Great Doward
  - porphyria (A. & S.), Fr. Brockhill Wood, nr. Colwall
  - muscaria (Linn.), Fr. Stoke
    Edith, Breinton, Haywood
    Forest, Dinmore, Eastnor,
    Whitcliffe
  - pantherina, (DC.), Fr. Haywood Forest, Dinmore, Pontrilas, Dinedor Camp, Eastnor, Whiteliffe Woods
  - excelsa, Fr. Stoke Edith
  - strobiliformis (Vitt.), Fr. Stretton Sugwas, Dowards
  - rubescens, Pers. Dinedor, Haywood Forest, Holme Lacy, Dinmore, Downton, Pontrilas, Eastnor
- spissa, Fr. Foxley, nr. Bringwood Chase; nr. Little Doward
- Amanitopsis vaginata (Bull.). Roze
  Dinedor, Greencrise, Haywood Forest, Rotherwas, Dinmore, Downton, Whitcliffe
  var. nivalis, Grev. Din-

more, Whitcliffe Woods var. plumbea, Schaeff. Belmont, Rotherwas, Holme

Lacy

1

var. fulva, Schaeff. Dinedor, Dinmore, Eastnor, Great Doward

# HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

# Amanitopsis strangulata (Fr.), Mass. Eastnor, Sufton Court

Lepiota procera (Scop.), Pers.

Mynde Park, Breinton, Burghill Court, Eaton Bishop, Lugwardine, &c.

— rachodes (Vitt.), Fr. Haywood Forest, Merryhill, Whitfield, Eastnor, Holme Lacy, Dinedor Camp

var. puellaris, Fr. Dinedor

— prominens, Fr. Ledbury

- excoriata (Schaeff.), Fr. Breinton, Burghill Court, Whitfield, Dinedor, Eastnor, Brockhamp-
- gracilenta (Krombh.), Fr. Haywood Forest, Credenhill, W hitfield, Holme Lacy, Eastnor
- friesii (Lasch.), Fr. Downton
- acutesquamosa (Weinm.) Fr.

  Breinton, Hill Hole; nr.

  Hampton Court; nr. Whitchurch
- badhami, B. & Br. Hill Hole, Hampton Court
- \*—hispida (Lasch.), Fr. Dinedor Camp 4
- clypeolaria (Bull.), Fr. Belmont, Dinedor, Brockhampton var. pratensis, Bull. Malvern Hills
- metulaespora, B. & Br. Foray 1885. *Brockhampton*
- felina, Pers. Brockhampton; nr. Colwall

<sup>4</sup> The No. 28, pl. 27, of Cooke's *Illustrations of British Fungi* seems to be a form of Lepiota clypeolaria rather than this species.—C. R.

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

- Lepiota cristata (A.& S.), Fr. Mynde

  Park, Ledbury, Belmont,

  Credenhill, Dinmore, Whitfield, Bromyard Downs,

  Eastnor
- erminea, Fr. Raggedstone Hill,
  Downton
- holosericea, Fr. Dr. Bull's list 1872. Hop-yard nr. Stoke Edith
- naucina, Fr. Haywood, Hampton Park, Lugwardine
- cepaestipes (Sow.), Fr. Hereford, Stoke Edith
- carcharias, Pers. Foxley,
   Downton; nr. Colwall
- cinnabarina (A. & S.), Fr.
  - var. Terreyi, B. & Br. Deerfold Forest, Dinedor 5
- amianthina (Scop.), Fr. Dinmore; nr. Colwall, Whiteliffe Wood; nr. Kilpeck
- polysticta, Berk. Little Hereford
- mesomorpha (Bull), Fr. Nr.

  Hereford
   seminuda (Lasch.), Fr. Down-
- ton, Eastnor, The Ridgeway
  var. lilacina, Quél. Holme
  Lacy
- bucknalli, B. & Br. Ledbury, Holme Lacy 6
- \*Armillaria bulbigera (A. & S.), Fr. Dinedor Camp 7

<sup>5</sup> It is very doubtful whether this is a good variety from the type.—C. R.

<sup>6</sup> This species has a strong smell of gas tar.

tar.
7 This is, as Quélet remarks with wonderful acumen, a white-spored Cortinarius.

HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Armillaria mellea (Vahl.), Fr. Common everywhere

— mucida (Schrad.) Fr. Stoke
Edith, Haywood Forest,
Dinmore, Lyonshall, Whitfield, Brockhampton, Holme
Lacy

Tricholoma sejunctum (Sow.), Fr.

Whitchurch, Haywood Forest,
Dinmore, Pontrilas, Holme
Lacy, Vennwood, Whitfield,
Dowards

- portentosum, Fr. Dinmore

— resplendens, Fr. Dinmore,
Whiteliffe, Eastnor, Downton,
Vennwood

— acerbum (Bull.), Fr. Dinedor, Dinmore, Croft Woods, Dowards

\*--nictitans, Fr. Holme Lacy, Dinmore

— flavobrunneum (Fr.). Dinmore Hill, Foxley, Croft Ambury, Dinedor, Holme Lacy, Dowards

— albobrunneum (Pers.), Fr.

Haywood Forest, Holme Lacy,
Dinmore, Brockhampton; nr.

Woolhope

- stans, Fr. Whiteliffe

— rutilans (Schaeff.), Fr. Dinedor
Camp, Haywood Forest,
Merryhill, Downton, Eastnor,
Brockhampton

\*— guttatum (Schaeff.), Fr. Down-

ton, Pontrilas

\*-- columbetta (Fr.). Dinmore, Whiteliffe, Eastnor

— imbricatum (Fr.). Garnstone, Pontrilas; nr. Whitchurch

- vaccinum (Pers.), Fr. Lyonshall, Brockhampton

\*— murinaceum (Bull.), Fr. Dinmore Hill; nr. Colwall

- terreum (Schaeff.), Fr. Common everywhere

— argyraceum (Bull.), Fr. Eastnor, Brockhampton var. atrosquamosum, Chév. Hampton Court, Hill

Hole, Pontrilas
— orirubens, Quél. Downton

— triste (Scop.), Fr. Dinmore, Whitcliffe

- saponaceum, Fr. Haywood Forest, Vennwood, Dinmore, Aymestrey, Eastnor, Whitcliffe, Colwall

— cartilagineum (Bull.), Fr

Mynde Park

atrocinerum (Pers.), Fr. Foxley
 cuneifolium, Fr. Haywood
 Forest, Downton, Moccas,
 Holme Lacy, Dinedor, Eastnor
 var. cinereo - rimosum
 (Batsch.), Fr. Eastnor

HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Tricholoma sulphureum (Bull.),Fr.

Whitchurch, Haywood Forest,
Rotherwas, Whitcliffe, Whitfield, Vennwood, Sufton Court,
Brockhampton

— bufonium (Pers.), Fr. Hereford Fungus Show. Brockhampton

— inamoenum, Fr. Dinmore Hill, Foxley, Downton

- carneum (Bull.), Fr. Dinmore, Hampton Court, Downton, Eastnor, Belmont

- gambosum, Fr. Tarrington,
Breinton, Vennwood, Vinesend, Whitfield

— album (Schaeff.) Fr. Whitchurch, Whitfield, Eastnor, Brockhampton

— personatum, Fr. Belmont, Haywood Forest, Merryhill, Brockhampton, Eastnor

— nudum (Bull.), Fr. Dovonton, Moccas, Brockhampton, Whitcliffe, Eastnor

— cinerascens (Bull.), Fr. Holme Lacy

— panaeolum, Fr. Dinmore, Brockhampton, Holme Lacy, Whiteliffe, Eastnor

— melaleucum (Pers.), Fr. Nr.

Belmont, Brockhampton, Eastnor, Stoke Edith

var. polioleucum, Fr.

Stoke Edith, Brockhampton

— grammopodium (Bull.), Fr. Haywood Forest, Deerfold Forest, Holme Lacy

\*— humile, Fr. Belmont, Merryhill
Common, Downton, Moccas,
Eastnor

subpulverulentum (Pers.), Fr.
 Breinton, Merryhill Common

\*— sordidum, Fr. Stoke Edith, Hereford, Colwall, Leominster — lixivium, Fr. Garnstone Park

\*Clitocybe nebularis (Batsch.), Fr.

Dinedor, Greencrise, Downton,

Whitcliffe, Brockhampton,

Eastnor

— clavipes (Pers.), Fr. Haywood Forest, Dinmore, Dinedor, Holme Lacy, Eastnor, Whitcliffe, Shobdon Court

\*— amara, Fr. Holme Lacy — socialis, Fr. Dinmore

— odora (Bull.), Fr. Eastnor Park, Haywood Forest, Dinmore, Colwall, Brockhampton, Whitcliffe, Downton

— rivulosa (Pers.), Fr. Nr. Belmont, Holme Lacy, Bromyard Downs, Stoke Edith; nr. Colwall

\*— cerrusata, Fr. Dinedor, Croft
Woods, Brockhampton, Whitcliffe

HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Clitocybe phyllophila, Fr. Dinedor, Eastnor, Brockhampton

— pithyophila, Fr. Dr. Bull's list 1873. West Mal-

- candicans (Pers.), Fr. Eastnor, Brockhampton, Whiteliffe, Little Doward, nr. Woolhope

— dealbata (Sow.), Fr. Dinedor, Haywood Forest, Whitfield, Eastnor, Brockhampton

var. minor, Cke. Dinedor
— fumosa (Pers.), Fr. Dinmore
Hill, Brockhampton, Holme
Lacy, Dowards

\*— tumulosa, Kalch. Dinmore, Whitcliffe Wood

- opaca (With.), Fr. Cowarne, Vennwood

— maxima (Fl. Wett.), Fr. Whitfield, Holme Lacy, Eastnor

- infundibuliformis (Schaeff.), Fr. Common everywhere

— incilis, Fr. West Malvern

\*— sinopica, Fr. Swineyard Hill,

Dinmore

— geotropa (Bull.), Fr. Pontrilas,

Whitfield, Eastnor, Dinmore,

Brockhampton, Holme Lacy,

Stoke Edith
— spinulosa, Stev. & Saun. Eastnor

gilva (Pers.), Fr. Brockhampton
inversa (Scop.), Fr. Foxley,

Dinmore, Holme Lacy, Brockhampton, The Ridgeway

\*— flaccida (Sow.), Fr. Dinedor, Eastnor, Whiteliffe, Brockhampton, Mynde Park

\*- catina, Fr. Ludlow, Brockhampton

- tuba, Fr. Haywood Forest

— cyathiformis (Bull.), Fr. Credenhill, Eastnor, Brockhampton, Whitcliffe

 brumalis, Fr. Dinedor, Eastnor, Brockhampton, Whitcliffe

- metachroa, Fr. Dinmore, Foxley, Brockhampton, Eastnor

\*— ditopa, Fr. Moccas, Colwall, Brockhampton

\*— fragrans (Sow.), Fr. Dinedor,

Haywood Forest, Dinmore,

Whitcliffe, Eastnor, Downton,

Brockhampton

Laccaria laccata (Scop.), B. & Br Common everywhere

var. amethystina (Vaill Bot.), B. & Br. Common with the typical form var. tortilis (Bolt.), B. & Br. Eastnor, Whiteliffe, Brockhampton

Collybia radicata (Relh.), Fr. Common everywhere

# HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

Collybia longipes (Bull.), Fr. Credenhill, Dinmore, Holme Lacy, Brockhampton

 platyphylla (Pers.), Fr. Dinmore, Eastnor, Whitcliffe, Brockhampton, Haywood Forest, Holme Lacy

— fusipes (Bull.), Fr. Haywood Forest, Downton, Brockhampton, Eastnor, Whiteliffe, Stoke Edith

— maculata (A. & S.), Fr. Haywood Forest, Downton, Eastnor, Whiteliffe, Brockhampton

butyracea (Bull.), Fr. Common everywhere

— velutipes (Curt.), Fr. Breinton, Downton, Eastnor, Brockhampton; nr. Whitchurch

— laxipes, Fr. Holme Lacy, Dinmore

— vertirugis, Cke. Dinmore, Downton, Brockhampton, Holme Lacy

- stipitaria, Fr. Nr. Colwall, Whiteliffe

— confluens (Pers.), Fr. Dinmore, Belmont, Holme Lacy, Eastnor, Brockhampton

- conigena (Pers.), Fr. Holme Lacy, Brockhampton, Eastnor

— cirrhata (Schum.), Fr. Stoke
Edith; nr. Colwall

— tuberosa (Bull.), Fr. Hayewood Forest, Dinmore, Lyonshall, Stoke Edith, Brockhampton, Eastnor

— xanthopa, Fr. Lugwardine, Foxley, Brockhampton

\*— succinea (Schaeff.), Fr. Dinedor, Leintwardine

— tenacella (Pers.), Fr. Dinedor,

- acervata, Fr. Dinmore, Haywood Forest, Eastnor

- dryophila (Bull.), Fr. Very common

- extuberans (Batt.), Fr. Foxley, Brockhampton, Eastnor

\*— rancida, Fr. Dinmore; nr. Colwall, Brockhampton, Whitcliffe

\*— eustygia, Cke. Whitfield

plexipes, Fr. Dinmoreambusta, Fr. Eastnor

— ambusta, Fr. Eastnor; nr. Stifford's Bridge, Merryhill, Haywood

- atrata, Fr. Dinmore, Merryhill, Whitcliffe Wood

Mycena pelianthina, Fr. Foxley, Downton, Brockhampton, Sufton Court

balanina, Berk. Nr. Hereford
elegans, Pers. West Malvern

 olivaceomarginata, Mass. Fields nr. Belmont

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Mycena rubromarginata, Fr. Brockhampton

\*— strobilina, Fr. var. coccinea (Sow.), Fr. Dinmore, Brockhampton

- rosella, Fr. Dinedor, Eastnor, Dinmore

pura, Pers. Haywood Forest,
 Downton, Whiteliffe Wood,
 Brockhampton, Eastnor

— adonis (Bull.), Fr. Downton — lineata (Bull.), Fr. Foxley

— lineata (Bull.), Fr. Foxley, at the base of the Herefordshire Beacon

— luteo-alba (Bolt.), Fr. Holme Lacy, Belmont, Brockhampton, Colwall

— flavo-alba, Fr. Dinmore, Brockhampton, Eastnor, Stoke Edith, Holme Lacy

— lactea, Pers. Dinmore, Brockhampton, Eastnor

— rugosa, Fr. Haywood Forest, Dinmore, Holme Lacy, Eastnor, Brockhampton, Whitcliffe

galericulata (Scop.), Fr. Common everywhere

var. calopa, Fr. Belmont, Haywood Forest, Rotherwas

\*- sudora, Fr. Haywood Forest, Foxley, Adam's Rocks

 polygramma (Bull.), Fr. Dinedor, Haywood, Vennwood, Lyonshall, Eastnor, Brockhampton

 parabolica, Fr. Foxley, Malvern Hills

- leptocephala, Pers. Haywood Forest, Rotherwas

\*— alcalina, Fr. Haywood Forest, Vennwood, Gredenhill, Downton, Eastnor, Brockhampton

— ammoniaca, Fr. Rotherwas, Gredenhill Camp, Brockhampton

— plicosa, Fr. Nr. the Herefordshire Beacon

— vitrea, Fr. Dinmore

- tenuis (Bolt.), Fr. Dinmore,
Downton

— filopes (Bull.), Fr. Downton, Haywood Forest, Eastnor, Whitcliffe, Brockhampton

- iris, Berk. Dinmore

- amicta, Fr. Nr. Woolhope

- vitilis, Fr. Dinmore, Eastnor

- speirea, Fr. Dinmore

- acicula (Schaeff.), Fr. Downton, Brockhampton, Foxley

— sanguinolenta (A. & S.), Fr.

Dinedor, Haywood Forest,
Vennwood, Eastnor, Brockhampton

— galopa, Fr. Dinedor, Downton, Dinmore, Holme Lacy, Stoke Edith, Eastnor, Whiteliffe

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Mycena leucogala, Cke. Eastnor
— epipterygia (Scop.), Fr. Adam's
Rocks, Haywood Forest, Credenhill, Dinmore, Dinedor,
Eastnor

- clavicularis, Fr. Nr. the Herefordshire Beacon

 pelliculosa, Fr. Base of the Herefordshire Beacon

\*— vulgaris, Pers. Dinedor, Haywood Forest, Foxley, Brockhampton, Stoke Edith, Holme Lacy

- rorida, Fr. Eastnor, Brock-hampton

- citrinella, Pers. Dinmore

- stylobates, Pers. Eastnor Park,
Brockhampton

- tenerrima, Berk. Foxley, Dinmore, Brockhampton, Eastnor

— discopa (Lév.), Fr. Haywood Forest, Brockhampton

- pterigena, Fr. Stoke Edith

— corticola (Schum.), Fr. Dinmore, Downton, Whitcliffe, Holme Lacy

\*—hiemalis (Osbeck), Fr. Dinedor, Rotherwas, Eastnor

— capillaris (Schum.), Fr. Haywood Forest, Dinmore, Leominster, Eastnor, Brockhampton

Omphalia hydrogramma, Fr. Malvern Hills

\*— Postii, Fr. Downton, Eastnor, Brockhampton

pyxidata (Bull.), Fr. City walls, Hereford; Merryhill Common, Whitcliffe, Coney Green Ledbury, Downton, nr. Garnstone

— rustica (Pers.), Fr. Dinmore, Pontrilas, Brockhampton, Eastnor, Raggedstone Hill

— alutacea, Cke. & Mass. Whitcliffe 8

\*— demissa, Fr. Dinmore, Whitcliffe

 hepatica (Batsch), Fr. Whitcliffe Wood, Brockhampton

— muralis (Sow.), Fr. Dinmore, Ledbury; nr. Bringsty Common; nr. Woolhope

- umbellifera (Linn.), Fr. Dinedor, Eastnor

- retosta, Fr. Dinmore

-- pseudoandrosacea (Bull.), Fr.

Haywood Forest

\*- stellata, Fr. Nr. Hereford

 campanella (Batsch), Fr. var. badipa, Cke. Nr. Hereford

— grisea, Fr. Whitcliffe Wood, Haywood Forest, Holme Lacy, Brockhampton

<sup>8</sup> See *Grevillea*, xxi, 40, but omitted in Massee's *British Fungus Flora*, iv.

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Omphalia fibula (Bull.), Fr. Haywood Forest, Holme Lacy, nr. Belmont, Eastnor, Brockhampton var. Swartzii, Fr. Whitcliffe

— integrella (Pers.), Fr. Nr. Brockhill, Brockhampton

Pleurotus corticatus, Fr. Leominster, Eastnor

— dryinus (Pers.), Fr. Holme Lacy, Rotherwas, Whitfield, Brockhampton

 ulmarius (Bull.), Fr. Hereford, nr. Stifford's Bridge

tessulatus (Bull.), Fr. Moccas
 subpalmatus, Fr. Moorhampton,
 nr. Colevall, Moccas

- lignatilis, Fr. Dinedor Camp

--- salignus (Pers.), Fr. Lugg Mills

— ostreatus (Jacq.), Fr. Ledbury, Breinton, Eastnor; nr. Bromyard

mitis (Pers.), Fr. Dinmore
tremulus, Fr. Holme Lacy

\*— acerosus, Fr. Haywood Forest,
Belmont, Downton, Aconbury
Wood

\*--- cyphellaeformis, Berk. Dinmore

— applicatus (Batsch), Fr. Holme Lacy

- hypnophilus, Berk. Haywood Forest

— chioneus (Pers.), Fr. *Dinmore* Volvaria bombycina (Schaeff.), Fr. *Brockhampton* 

— Loveiana, Berk. Downton 9

-- gloiocephala (DC.), Fr. Nr. Hereford

— media (Schum.), Fr. Brockhampton

Pluteus cervinus (Schaeff.), Fr.

Haywood, Dinmore, Holme
Lacy, Eastnor, Whiteliffe, West
Malvern

var. patricius, Schulz. Dymock var.\* Bullii, Berk. Here-

ford Fungus Show
var. petasatus, Fr. Stoke
Edith

- umbrosus (Pers.), Fr. Haywood Forest, Sufton Court

— nanus (Pers.), Fr. Belmont, Moccas, Downton

roseo-albus, Fr. Burghill Court
leoninus (Schaeff.), Fr. Nr.

Hereford
 chrysophaeus (Schaeff.), Fr.
 Dowards

- phlebophorus (Dittm.), Fr. Sufton Court

9 The mycelium noted on Clitocybe nebularis; Trans. Woolhope Club (1877), p. 47.

# HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

\*Entoloma sinuatum, Fr. Haywood
Forest, Dinmore, Holme Lacy,
Eastnor, Whitcliffe, Brockhampton

— lividum (Bull.), Fr. Nr. Dinedor Camp, Eastnor, Din-

Haywood

•— prunuloides, Fr. Forest

—porphyrophaeum, Fr. Leintwardine, Merryhill Common, Haywood Forest

\*— placenta (Batsch), Fr. Downton \*— helodes, Fr. Nr. Hereford

\*— Bloxami, Berk. Merryhill Common, Brockhampton, Deerfold Forest, Rotherwas

ameides, B. & Br. Whitcliffe
Saundersii, Fr. Holme Lacy

— jubatum, Fr. Nr. Belmont, Holme Lacy, Eastnor, Brockhampton, Whitcliffe, nr. Garnstone Park

- clypeatum (Linn.), Fr. Downton, nr. Ledbury

\*— rhodopolium, Fr. Downton, Whiteliffe, Eastnor, Sufton Court

— costatum, Fr. Eastnor, Brockhampton

 sericeum (Bull.), Fr. Merryhill Common, Holme Lacy, nr. Belmont, Eastnor, Brockhampton

— nidorosum, Fr. Haywood Forest, Rotherwas, Credenhill, Dinmore, Stoke Edith, Whitcliffe, Brockhampton

\*- speculum, Fr. Dinedor

\*Clitopilus prunulus (Scop.), Fr. Mynde Park, Dinedor, Greencrise, Pontrilas, Eastnor, Brockhampton, Whiteliffe

— orcella (Bull.), Fr. Mynde Park

— popinalis, Fr. Holme Lacy

\*— cancrinus, Fr. Deerfold Forest

\*— cancrinus, Fr. Deerfold Forest,

Brockhampton

\*Leptonia placida, Fr. Downton
— lampropa, Fr. Merryhill
Common, nr. Belmont, Holme
Lacy, Eastnor, Brockhampton

- aethiops, Fr. Eastnor, Brock-

— serrulata (Pers.), Fr. Nr. Belmont, Holme Lacy, Eastnor, Brockhampton

--- euchroa (Pers.), Fr. Eastnor Park, Dinmore, Downton, Shohdon Court, Dowards

\*— chalybea (Pers.), Fr. Downton, Haywood Common

— sericella (Fr.), Quél. Rotherwas, Dinmore, Holme Lacy, Stoke Edith, Brockhampton

# HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

\*Leptonia incana, Fr. Bryngwyn, Moccas, Coney Green, nr. Ledbury, Dowards

Nolanea pascua (Pers.), Fr. Bryngwyn, Merrybill Common, Dinedor, Holme Lacy, Eastnor, Brockbampton

\*- pisciodora (Ces.), Fr. Whitcliffe Wood, Eastnor, Brock-

hampton

\*— icterina, Fr. Nr. Hereford, Holme Lacy Park

\*- picea, Kalchbr. Holme Lacy, Rotherwas

infula, Fr. Dinmore, Eastnor
rubida, Berk. Holme Lacy

Eccilia carneo-grisea, B. & Br. Seager Hill, Whiteliffe, nr. Woolhope

woolnope

atrides (Lasch.), Fr. Hereford
 atropuncta (Pers.), Fr. Rotherwas, Stoke Edith, Brockhampton, Dinmore, Sufton Court

Claudopus variabilis (Pers.), Sm.

Haywood, Dinmore, Whitfield,
Eastnor, Whiteliffe, Brockhampton

— depluens (Batsch), Sm. Eastnor Park, Whiteliffe

\*Pholiota aurea (Matt.), Fr. var. Herefordensis Renny. Bel-

\*— terrigena, Fr. (= Cookei, Fr.).

Dinmore; nr. Colwall, Oakley
Park

\*— erebia, Fr. Credenhill, Brockhampton, Church Hill, Leintwardine, Sufton Court, Downton

— togularis (Bull.), Fr. Ledbury, Gredenhill, Dinmore, Whitcliffe, Brockhampton; nr. Woolbope

\*— praecox (Pers.), Fr. Nr. Belmont, Eastnor, Stoke Edith, Vinesend, Breinton

\*— radicosa (Bull.), Fr. Haywood Forest, Credenhill, Dinmore, Downton, Brockhampton

pudica, Fr. Hagley Park
heteroclita, Fr. Downton

\*— aurivella (Batsch), Fr. Credenhill

\*— squarrosa (Mull.), Fr. Mynde Park, Merryfield, and in orchards throughout the county

— subsquarrosa, Fr. Hereford

— spectabilis, Fr. Dinedor, Pontrilas, Whitfield, Eastnor, Stoke Edith, Brockhampton

— adiposa, Fr. Eastnor Park

 mutabilis (Schaeff.), Fr. Ledbury, Lugwardine, Dinmore
 marginata (Batsch), Fr. Led-

bury, Rotherwas, Dinmore

## HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

- Pholiota unicolor (Fl. Dan.), Fr. Downton, Woolhope, Dinmore, Sufton Court
- \*Inocybe hystrix, Fr. Nr. Hereford, Eastnor, Brockhamp-
- \*- calamistrata, Fr. Ledbury. Downton
- hirsuta (Lasch), Fr. Foxley
- lanuginosa (Bull.), Fr. Haywood Forest, Holme Lacy, Eastnor
- \*— dulcamara (A. & S.), Fr. Dinmore, Brockhampton, Dinedor
- cincinnata, Fr. Eastnor. Brockhampton, Whiteliffe
- \* haemacta, B. & Cke. Credenhill, Downton
- petiginosa (Fr.), Quél. Dinedor, Dinmore, Brockhampton, Whitcliffe
- \*- pyriodora (Pers.), Fr. Credenhill, Dinmore, Foxley, Whiteliffe, Brockhampton, Downton, Stoke Edith, East-202
- \*- incarnata, Bres. Dinmore, Eastnor, Dinedor
- \*- scabra, Fr, Whitcliffe
- flocculosa, Berk. Rotherwas, Eastnor, Brockhampton
  - mutica, Fr. Dinmore
- \* obscura (Pers.), Fr. Downton, Dinmore, Sufton Court, Credenhill
- \*- fastigiata (Schaeff.), Fr. Dinedor, Haywood Forest, Vennwood, Foxley, Dinmore
- \*— rimosa (Bull.), Fr. Dinedor. Rotherwas, Croft Wood, Stoke Edith, Eastnor, Brockhamp-
- \*— asterospora, Quél. Dinedor, Haywood, Rotherwas, Dinmore, Foxley, Sunny Gutter, Eastnor, Brockhampton
- \*- eutheles, B. & Br. Nr. Hereford, Brockhampton
- destricta, Fr. Stoke Edith, Ledbury
- descissa, Fr. Whitcliffe - lucifuga, Fr. Dinmore
- \*- geophylla (Sow.), Fr. Dinedor, Haywood, Rotherwas, Credenhill, Foxley, Whitcliffe
  - var. violacea, Pat. Dinmore, Eastnor, Brockhampton
- scabella, Fr. Haywood Forest, Holme Lacy, Brockhampton
- Rennyi, B. & Br. Dinedor Fir Wood
- Hebeloma fastibile, Fr. Haywood, Eastnor, Brockhampton, Whitcliffe

# HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

- \*Hebeloma glutinosum (Lind.), Fr. (= Flammula lenta (Pers.), Haywood, Eastnor, Fr.). Brockhampton, Sunny Gutter; nr. Ludlow, Whiteliffe
  - testaceum (Batsch), Fr. Brockhampton
- \*- mesophaeum, Fr. Dinmore; nr. Colwall, Whiteliffe, Brockhampton
- \*— sinapizans, Fr. Credenhill \*— crustuliniforme (Bull.), Fr. Belmont, Haywood Forest, Credenhill, Dinmore, Eastnor, Whitcliffe
- elatum (Batsch), Fr. Colwall - longicaudum (Pers.), Dinmore, Brockhampton
  - var. radicatum, Cke. Dinedor Camp
- nudipes, Fr. Dinmore
- nauseosum, Cke. Dinmore Flammula tricholoma (A. & S.), Karst. Nr. Colwall, Dinmore
  - carbonaria, Fr. Sunny Gutter, Whitcliffe Wood, Dinmore; nr. Garnstone
- \*- filia, Fr. Haywood Forest
- alnicola, Fr. Downton
- flavida (Schaeff.), Fr. Dinmore, Eastnor, Whitcliffe, Brockhampton
- inopa, Fr. Dinmore, Eastnor, Whiteliffe, Brockhampton
- hybrida, Fr. Dr. Bull's list, 1873
- sapinea, Fr. Eastnor, Brockhampton
- scamba, Fr. Stoke Edith
- \*Naucoria cidaris, Fr. Rotherwas
- cucumis (Pers.), Fr. Holme Lacy, Dinmore; nr. Garnstone Park
- innocua (Lasch), Fr. Sufton Court
- melinoides, Fr. Nr. Belmont, Holme Lacy, Eastnor, Brockhampton
- \*- rubricata, B. & Br. Holme Lacy 10
- \* badipes (Pers.), Fr. Holme Lacy, Eastnor, Brockhamp-
- semiorbicularis (Bull.), Fr. Dinedor; nr. Colwall, Stoke
- \* temulenta, Fr. Cowarne Court
- sobria, Fr. Stoke Edith
- erinacea, Fr. Dinmore
- \*- conspersa (Pers.), Fr. Dinmore
- -- escharoides, Fr. Dinmore, Brockhampton
- 10 Massee says this is a Marasmius; see Brit. Fung. Flora, iii, 164.

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

- \*Galera lateritia, Fr. Breinton - tenera (Schaeff.), Fr. Dinedor, Haywood Forest, Holme Lacy,
- Stoke Edith, Brockhampton

   spartea, Fr. Haywood Forest, Eastnor, Brockhampton
- hypnorum (Batsch), Fr. Haywood, Dinmore, Moccas. Eastnor, Brockhampton, Whitcliffe
- mniophila (Lasch), Fr. Stoke Edith
- \*Tubaria cupularis (Bull.), Sm. Dinmore
- \*- furfuracea (Pers.), Sm. Common everywhere
- autochthona (B. & Br.), Sm. Shobdon
- \*- crobula, Fr. Credenhill, Haywood Forest; nr. Colwall, Brockhampton
- \*- inquilina, Fr. Dinedor, Stoke Edith
- Crepidotus mollis (Schaeff.), Fr. Downton, Dinmore, Holme Lacy, Eastnor, Brockhampton
- Agaricus arvensis (Schaeff.). Credenhill, Merryhill Common, Moccas, Eastnor, Brockhamp
  - var.\* purpurascens, Cke. Deerfold Forest
- xanthoderma, Genev. Stoke Edith, Ledbury, Brockhampton
- campestris, Linn. Mynde Park, Dinedor, Dinmore, Eastnor, Brockhampton var. silvicola, Vitt. Din
  - more, Holme Lacy, Brockhampton, Stoke Edith
- silvaticus, Schaeff. Belmont, Rotherwas
- \*- haemorrhoidarius, Schulz. Ledbury, nr. Hereford, Credenhill, Holme Lacy
- comtulus, Fr. Nr. Belmont, Holme Lacy, Eastnor, Brockhampton
- Stropharia Percevali, B. & Br. Whiteliffe
- aeruginosa (Curt.), Fr. Belmont, Haywood Forest, Dinmore, Moccas, Holme Lacy, Eastnor
- albocyanea (Desm.), Fr. Dinmore, Belmont, Stoke Edith, Eastnor, Brockhampton
- \*— inuncta, Fr. Nr. Whitecross, Dinmore, Holme Lacy, nr. Belmont, Brockhampton
- obturata, Fr. Brockhill Copse — coronilla (Bull.), Fr. Nr. Colwall
- squamosa, Fr. Haywood Forest, Dinmore, Foxley, Rotherwas, Brockhampton

HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Stropharia thrausta (Kalchbr.), Fr.

Haywood Forest, Eastnor,

Brockhampton

var. aurantiaca, Cke.

Rotherwas

- stercoraria, Fr. Nr. Colwall, Stoke Edith, Brockhampton
- semiglobata (Batsch), Fr. Dinedor, Haywood, Dinmore, Downton, Eastnor

— caput-Medusae, Fr. Holme

Hypholma sublateritium (Schaeff.), Fr. Burghill Court, Dinedor, Dinmore, Haywood Forest, Whiteliffe

— capnoides, Fr. Haywood Forest, Dinmore, Lyonshall, Pontrilas, Brockhampton

- epixanthum, Fr. Dinmore, Lyonshall, Brockhampton

fasciculare (Huds.), Fr. Common everywhere

- oedipum Cke. Clehonger

— lacrymabundum, Fr. *Cr* denhill

\*— pyrotrichum (Holmsk.), Fr.
Rotherwas, Credenhill, Dinmore, Eastnor, Brockhampton

— velutinum (Pers.), Fr. Belmont, Burghill, Haywood Forest, Credenhill, Dinmore, Dowards

- cascum, Fr. Stoke Edith

— candolleanum, Fr. Breinton, Vennwood, Greencrise, Dinmore, Sufton Court

— appendiculatum (Bull.), Fr. Bryngwyn, Haywood Forest, Vennwood, Dinmore, Holme Lacy

— hydrophilum (Bull.). Dinedor, Dinmore, Downton, Eastnor, Brockhampton

Psilocybe sarcocephala, Fr. Downton, Eastnor, Brockhampton

— ericaea (Pers.), Fr. Cowarne Court

uda (Pers.), Fr. Nr. Colwall
 bullacea (Bull.), Fr. Holly
 Bush Hill, Brockhampton

- semilanceata, Fr. Common everywhere

var. caerulescens, Cke.

Holme Lacy; nr. Belmont

— spadicea, Fr. Belmont, Haywood Forest 11

- foenisecii (Pers.), Fr. Common everywhere

Psathyra conopilea, Fr. Credenhill, Foxley

— corrugis (Pers.), Fr. Dinmore, Rotherwas, Eastnor, Whiteliffe, Brockhampton

11 I cannot confirm this determination.→ C. R.

HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Psathyra semivestita, B. & Br. Dinmore, Downton

— fibrillosa (Pers.), Fr. Brockhampton

Anellaria separata (Fr.), Karst.

Breinton, Merryhill Common,

Holme Lacy, Eastnor

— fimiputris (Bull.), Karst.

Merryhill Common, Eastnor,
Brockhampton

Panaeolus retirugis, Fr. Dinmore — sphinctrinus, Fr. Brockhampton

--- campanulatus (Linn), Fr. Common everywhere

— papilionaceus, Fr. Holme
Lacy; nr. Belmont
— fimicola, Fr. Merryhill Com-

— fimicola, Fr. Merryhill Common

Psathyrella gracilis, Fr. Credenbill, Holme Lacy, Rotherwas, Stoke Edith, Brockhampton

- trepida, Fr. Stoke Edith

— atomata, Fr. Nr. Belmont, Rotherwas, Holme Lacy, Eastnor, Brockhampton

- prona, Fr. Credenhill

— disseminata, Fr. Dinmore, Merryhill Common, Whitcliffe, Brockhampton

Coprinus comatus, Fr. Burghill
Gourt, Hereford, Rotherwas,
Dinmore, Whitfield, Stoke
Edith, Eastnor

— atramentarius, Fr. Burghill Court, Hereford Close, Haywood Forest, Rotherwas; nr. Colevall

— fuscescens (Schaeff.), Fr. Dinmore, Eastnor

 picaceus, Fr. Haywood Forest, Dinmore, Deerfold Forest, Downton

— niveus, Fr. Dinedor, Merryhill Common, Holme Lacy, Eastnor, Stoke Edith, Brockhampton

- extinctorius, Fr. Haywood
Forest

— domesticus (Pers.), Fr. Garnstone Park

— lagopus, Fr. Dinmore, Brockhampton, Haywood Forest

— fimetarius, Fr. Downton, Rotherwas, Holme Lacy, Eastnor, Stoke Edith

var.\*pullatus, Fr. Haywood Common

var. cinereus (Schaeff.), Fr. Holme Lacy, Dinmore, Brockhampton

— micaceus, Fr. Dinedor, Greencrise, Haywood Forest, Dinmore, Stoke Edith, East-

— stercorarius, Fr. Haywood Forest HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Coprinus radiatus, Fr. Brockhampton, Stoke Edith, Merryhill Common

— plicatilis, Fr. Haywood Forest, Dinmore, Holme Lacy, Whitcliffe, Brockhampton

deliquescens, Fr. Haywood
 Forest, Eastnor, Brockhampton
 Bolbitius boltoni, Fr. Brockhampton, West Malvern

- fragilis, Fr. Dinmore, Stoke Edith, Eastnor, Brockhampton

- tener, Berk. Nr. Colwall,

Brockhampton

\*Cortinarius (Phlegmacium), triumphans, Fr. Dinmore, Haywood Forest, Rotherwas

- claricolor, Fr. Nr. Hereford; nr. Ledbury

— balteatus, Fr. Holme Lacy Park

- sebaceus, Fr. Haywood Forest

\*— varius, Fr. Nr. Hereford, Dinmore, Dinedor, Brockhampton, Eastnor, Ledbury

- cyanopus, Fr. Nr. Hereford; nr. Colwall

- variicolor (Pers.), Fr. Dinmore, Brockhampton

- largus, Fr. Dinmore, Eastnor, Brockhampton, Whiteliffe

- Riederi, Fr. Haywood Forest, Whitcliffe Wood

• — russus, Fr. Dinedor Camp, Haywood Forest, Credenhill, Garnstone Park

 infractus, Fr. Haywood Forest, nr. Ludlow

\*— anfractus, Fr. Eastnor, Brockbampton, Dinmore

\*— multiformis, Fr. Brockhampton, nr. Ledbury

\*- napus, Fr. Fir Woods Ledbury

talus, Fr. Nr. Colwall
glaucopus, Fr. Ledbury, Haywood Forest

— calochrous, Fr. Haywood, Dinmore, Ledbury

\*— caerulescens, Fr. Whiteliffe Wood, Holme Lacy

— purpurascens, Fr. Haywood Forest, Holme Lacy, Credenbill, Eastnor, Brockhampton, Whiteliffe

\*— dibaphus, Fr. var. xanthophyllus, Cke. *Dinmore* 

\*— fulgens, Fr. Fownhope Woods,
Stoke Edith, Vennwood,
Downton, nr. Ludlow, Pontrilas

\*— fulmineus, Fr. Ledbury

testaceus, Cke. Whitfield
scaurus, Fr. Brockhampton

\*- cumatilis, Fr. Shobdon

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Cortinarius (Myxacium) collinitus. Fr. Breinton, Haywood Forest, Whitcliffe Wood, Eastnor, Brockhampton

- mucifluus, Fr. Breinton, Dinedor, Greencrise, Credenhill, Whitcliffe, Pontrilas, Stoke Edith, Brockhampton

- elatior, Fr. Haywood, Credenhill, Dinmore, Foxley, Downton, Rotherwas, Holme Lacy, Eastnor, Stoke Edith, Brockhampton

\*- grallipes, Fr. Haywood Forest

\* - livido-ochraceus, Berk. Dinmore, Cockshoot Hill

- delibutus, Fr. Dinmore

- vibratilis, Fr. Eastnor, Brockhampton

\*- (Inoloma) violaceus (Linn.), Fr. Dinedor, Haywood Forest, Leintwardine, Pontrilas

\*- muricinus, Fr. Dinedor - albo-violaceus, Fr. Nr. Hereford, Eastnor, Brockhampton

\*- malachius, Fr. Pontrilas

- callisteus, Fr. Haywood Forest

\*— Bulliardi, Fr. Haywood Forest

\*— vinosus, Cke. Eastnor Park

bolaris, Fr. Downton

\*- pholideus, Fr. Dinmore, Moor Park, Whiteliffe

\*- sublanatus, Fr. W bitcliffe Wood, Dinmore

— (Dermocybe) ochroleucus, Fr. Haywood Forest, Credenhill, Dinmore, Pontrilas, Eastnor, Brockhampton

- tabularis, Fr. Dinmore, Eastnor, Brockhampton

- diabolicus, Fr. Dinmore, Eastnor - caninus, Fr. Haywood Forest, Mary Knoll nr. Ludlow, nr. Colwall, Brockhampton

\*— albocyaneus, Fr. Whiteliffe \* - anomalus, Fr. Haywood For-

est, Brockhampton, Whitcliffe - lepidopus, Cke. Dinmore, Holme Lacy, Eastnor, Brockhampton, Whitcliffe

\*- miltinus, Fr. Downton, Eastnor, Ledbury

\*- cinnabarinus, Fr. Haywood Forest, Foxley, Downton, Mary Knoll, Woodside Copse

- sanguineus, Fr. Dinmore, Rotherwas, Stoke Edith, Whitcliffe, Brockhampton, Downton

– anthracinus,Fr. *Ledbur*y

- cinnamomeus, Fr. Dinedor, HaywoodForest, Downton, Dinmore, Holme Lacy, Stoke Edith, Eastnor, Brockhampton, Whitcliffe var.\* croceus (Schaeff.), Fr. Haywood Forest

var. semisanguineus, Fr. Nr. Cokwall, Brockhampton

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Cortinarius (Dermocybe) uliginosus, Berk. West Malvern

\* -- croceoconus, Fr. Whiteliffe - orellanus, Fr. Downton

\*- infucatus, Fr. Haywood Forest - raphanoides, Fr. Brockhampton, Whitcliffe

\* (Telamonia) bivelus, Fr. Dinedor

\*- bulbosus, Fr. Haywood Forest, Whitcliffe

\*- torvus, Fr. Haywood Forest, Dinmore, Whitcliffe, Stoke Edith, Eastnor, Brockhampton

\*- impennis, Fr. Dinmore, Eastnor, Brockhampton

\*- scutulatus, Fr. Foxley, Whitcliffe

- evernius, Fr. Brockhampton, Whiteliffe

- quadricolor (Scop.), Fr. East-

- armillatus, Fr. Dinmore, Whitcliffe

— haematochelis (Bull.), Whitcliffe

\*- hinnuleus, Fr. Burghill Court, Haywood Forest, Rotherwas, Credenbill, Pontrilas, Eastnor

\* gentilis, Fr. Haywood Forest \*- bovinus, Fr. Haywood Forest

- brunneus, Fr. Dinedor, Whitcliffe

\* - flexipes, Fr. Whiteliffe, Dinmore

\*- psammocephalus (Bull), Fr. Whiteliffe, Dinmore, Credenhill Camp

- incisus, Fr. Haywood, Credenhill, Downton, Eastnor, Whitcliffe, Brockhampton

\*- hemitrichus, Fr. Whitcliffe, Dinmore, Rotherwas, Belmont, Eastnor, Brockhampton

\*- stemmatus, Fr. Haywood Forest - rigidus, Fr. Whitcliffe, Brockhampton, Eastnor

\*- paleaceus, Fr. Credenhill, Dinmore, Whitcliffe, Eastnor, Brockhampton, Haywood Forest

\*- (Hydrocybe) subferrugineus, Fr. Haywood Forest

- armeniacus (Schaeff.), Sufton Court

\*- privignus, Fr. Dinmore

\*- saturninus, Fr. Dinmore - imbutus, Fr. Dinmore

\* castaneus (Bull.), Fr. Hereford

\*- balaustinus, Fr. Credenhill

\*— colus, Fr. Whitfield \* - uraceus, Fr. Dinmore

- dolabratus, Fr. Dinmore, Brockhampton

- leucopus (Bull.), Fr. Colwall, Brockhampton, Eastnor, Whitcliffe

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Cortinarius (Hydrocybe) erythrinus. Fr. Whiteliffe, Eastnor

- decipiens, Fr. Eastnor, Stoke Edith, Brockhampton, Whit-

- acutus, Fr. Dinedor, Haywood Forest, Credenhill, East-Brockhampton, Whitcliffe

- fasciatus, Fr. Haywood Forest, Dinmore

Gomphidius glutinosus (Schaeff.), Credenhill, Brockhamp-Fr.

- roseus, Fr. Dinmore

\*- viscidus (Sow.), Fr. Breinton, Credenhill, Merryhill Common, Tedstone Delamere, Stoke Edith, Brockhampton

\*— maculatus (Scop.), Fr. Dinedor, Stretton Sugwas

- gracilis, Berk. Dinedor Camp, Brockhampton, nr. Woolhope

Paxillus giganteus (Sow.), Fr. Aylestone Hill, Breinton, nr. Bronsil Castle, Holme Lacy

Alexandri, Fr. Whiteliffe
extenuatus, Fr. Nr. Hereford
involutus, Fr. Ledbury, Dinedor, Credenhill, Dinmore, Haywood Forest, Whiteliffe, Brockhampton

- leptopus, Fr. Dinmore, Eastnor

- panuoides, Fr. Downton

Hygrophorus (Limacium) chrysodon, Fr. Whitfield, nr. Colwall, Stoke Edith, Holme Lacy

- eburneus (Bull.), Fr. Dinmore. Holme Lacy, West Malvern, Brockhampton, Eastnor

- cossus (Sow.), Fr. Stoke Edith, Dinmore, Whitcliffe, Pontrilas, Eastnor, Brockhampton

\*- erubescens, Fr. Dinedor

- arbustivus, Fr. Dinmore - discoideus, Fr. Dinmore

- limacinus, Fr. Downton

- olivaceo-albus, Fr. Downton, Church Hill, Leintwardine

 hypothejus, Fr. Dinedor, Merryhill Common, Downton, Brockhampton

— cerasinus, Berk. Whitfield, Holme Lacy

- (Camarophyllus) leporinus. Fr. Brockhampton

- pratensis, Fr. Merryhill Common, Downton, Whitfield, Holme Lacy, Eastnor, Stoke Edith

- virgineus (Wulf.), Fr. Stoke Edith, Dinedor, Holme Lacy, Merryhill Common, Dozunton, Brockhampton

# HYMENOMYCETAE (cont.) Agaricaceae (cont.)

Hygrophorus (Camarophyllus), niveus, Fr. Mynde Park, Holme Lacy, Eastnor, Whit-

\*— russo-coriaceus, B. & Br.

Holme Lacy, Moccas, Brock-

hampton, Eastnor, Garnstone Park

- fornicatus, Fr. Nr. Ludlow, Brockhampton, Whiteliffe

\*— clivalis, Fr. Holme Lacy, Moccas Park

- metapodius, Fr. Leintwardine

ovinus (Bull.), Fr. Between
 Cowleigh Wood and Croft
 Wood, Eastnor, Brockhampton

— subradiatus, Fr.

\*var. lacmus, Fr. Dinedor, Downton, Sufton Court

- irrigatus, Fr. Holme Lacy

- (Hygrocybe), Colemannianus, Blox. Garnstone Park

- laetus, Fr. Dinedor, Whitcliffe, Holme Lacy; nr. Colwell, Eastnor, Brockhampton

— ceraceus (Wulf.), Fr. Dinedor, Merryhill Common, Downton, Whiteliffe, Stoke Edith, Eastnor, Brockhampton

— coccineus (Schaeff.), Fr. Mynde Park, Merryhill Common, Downton, Whiteliffe, Eastnor; nr. Belmont, Stoke Edith, Brockhampton

- miniatus, Fr. Vennwood, Dinedor, Holme Lacy, Eastnor,

Brockhampton

turundus, Fr. Dinedor Camp
 puniceus, Fr. Holme Lacy,
 Whitcliffe, Whitfield, Eastnor,
 Brockhampton

— obrusseus, Fr. Downton, Brockhampton, Malvern Hills

— conicus, \*Fr. Dinedor, Haywood, Downton, Whiteliffe, Eastnor, Brockhampton

— calyptraeformis, Berk. Holme Lacy, Garnstone, Downton, Whitfield, Moccas, Stoke Edith; nr. Colwall, Brockbampton

— chlorophanus, Fr. Dinedor, Merryhill Common, Holme Lacy, Stoke Edith, Eastnor,

Brockhampton

— psittacinus (Schaeff.), Fr. Holme Lacy, Gredenhill, Merryhill Common, Downton, Whitfield, Eastnor, Stoke Edith, Brockhampton

 unguinosus, Fr. Whiteliffe, Brockhampton

— nitratus (Pers.), Fr. Holme Lacy, Dinmore

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Lactarius (Piperites), scrobiculatus (Scop.), Fr. Dinmore

— intermedius, Kromb. West Malvern

— torminosus (Schaeff.), Fr. Bryngwyn, Dinedor, Haywood Forest, Credenhill, Aymestrey, Dinmore, Whitfield, Eastnor, Whitcliffe, Brockhampton

- cilicioides, Fr. Vennwood, nr.

Hereford

\*— turpis (Weinm.), Fr. Dinedor, Bryngwyn, Haywood Forest, Holme Lacy, Credenbill, Whitcliffe, Stoke Edith, Eastnor, Brockhampton, Dinmore

\*- controversus (Pers.), Fr. Frankland's Gate, Breinton

- pubescens, Fr. Cowarne Court, Dinmore, Dinedor, Brockbampton, Eastnor

— insulsus, Fr. Dinedor, Vennwood, Credenbill, Whiteliffe, Shobdon Court

— blennius, Fr. Stoke Edith, Dinedor, Haywood Forest, Credenhill, Dinmore, Whitcliffe, Eastnor, Brockhampton

\*— hysginus, Fr. Letton Court — trivialis, Fr. Dinedor, Hay-

wood Forest

- circellatus, Fr. Dinmore

— uvidus, Fr. Haywood Forest, Bryngwyn Hill, Gredenhill, Dinmore, Brockhampton

\*— flexuosus, Fr. Haywood Forest,
Dinmore

\*— pyrogalus (Bull.), Fr. Brockhall, Dinedor, Greencrise, Haywood Forest, Dinmore, Eastnor, Whitcliffe, Brockhampton

— chrysorheus, Fr. Dinmore, Haywood Forest; nr. Colwall, Dinedor, Brockhampton

\*- pergamenus, Fr. Haywood Forest, Dinmore, Whitcliffe

— piperatus (Scop.), Fr. Dinedor, Haywood Forest, Dinmore, Whitcliffe

\*— vellereus, Fr. Dinedor, Haywood Forest, Dinmore, Downton, Whitcliffe, Stoke Edith, Eastnor, Brockhampton; nr. Colwall

— (Dapetes) deliciosus (Linn.), Fr. Credenhill, Dinmore, Merryhill Common, Whitfield, Malwern Hills, Eastnor, Stoke Edith, Brockhampton, Dowards

\*— (Russulares), pallidus (Pers.), Fr. Credenhill, Downton, Holme Lacy, Dinedor, Brockhampton; nr. Woolhope

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Lactarius (Russulares), quietus, Fr. Lyonshall, Stoke Edith, Eastnor, Brockhampton

- theiogalus (Bull.), Fr. Dinmore, Brockhampton

— aurantiacus (Fl. Dan.), Fr.

Dinmore, Holme Lacy, Eastnor

\*— vietus, Fr. Whitcliffe; nr.

Hereford
— rufus (Scop.) Shobdon Court,

\*-- mammosus, Fr. Holme Lacy

— glyciosmus, F. Haywood Forest, Dinmore, Downton, Whiteliffe, Lyonshall, Eastnor, Brockhampton

- fuliginosus, Fr. Croft Wood, Brockhampton

\*- picinus, Fr. Foxley

\*— lilacinus (Lasch.), Fr. Sunny Gutter nr. Ludlow

- volemus, Fr. Haywood Forest, Downton, Pontrilas, Dowards

\*— ichoratus (Batsch.), Fr. Nr. Hereford

— serifluus (DC.), Fr. Dinedor, Haywood Forest, Sunny Gutter, Stoke Edith, Eastnor, Brockhampton

— mitissimus, Fr. Dinedor, Haywood, Gredenhill, Whiteliffe, Dinmore, Holme Lacy, Stoke Edith, Brockhampton

— subdulcis (Bull.), Fr. Dinedor, Haywood, Gredenbill, Whiteliffe, Eastnor, Brockhampton

- camphoratus, Fr. Credenhill, Sunny Gutter, Whitcliffe

— cimicarius (Batsch), Fr.

Haywood Forest

 subumbonatus, Lindgr. Dinmore

- minimus, Smith. Dinedor

\*— obliquus, Fr. Dinmore
Russula (Compactae) nigricans
(Bull.), Fr. Dinedor, Haywood Forest, Dinmore, Downton, Sunny Gutter, Lyonshall,
Eastnor, Brockhampton

— adusta, Pers. Dinedor, Haywood Forest, Vennwood, Downton, Brockhampton

chloroides (Krombh.), Bres.
 Dinmore, Dinedor, Holme
 Lacy, Eastnor, Brockhampton,
 Stoke Edith

— (Furcatae) furcata, Pers.

Mynde Park, Dinedor Common, Haywood Forest, Dinmore, Whitcliffe, Eastnor,

Brockhampton, Stoke Edith

\*var. ochro-viridis, Cke.

Dinedor

\*— sanguinea, Fr. Haywood Common, Eastnor

## HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

\*Russula (Furcatae) rosacea, Fr. Burghill Court, Credenhill, Brockhampton

- sardonia, Fr. Dinedor, Downton, Brockhampton; nr. Colwall

- depallens, Fr. Burghill Court, Haywood Common, Credenhill Camp, Eastnor, Brockhampton, Dinedor

- drimeia, Cke. (= expallens, Gillet). Dinedor, Brockhampton

\* (Rigidae) lactea, Fr. Credenhill

- virescens (Schaeff.), Fr. Brockhampton, Whitcliffe

'Dinedor - cutefracta, Cke. and other places around Hereford'

- lepida, Fr. Haywood Forest, Eastnor, Brockhampton, Sufton Court; nr. Belmont, Downton

— rubra (DC.), Fr. Breinton, Dinedor Common, Credenhill, Brockhampton, Shobdon Court

- Linnaei, Fr. Downton

- xerampelina, Fr. Whiteliffe, Stoke Edith

- atropurpurea (Krombh). Nr. Hereford

- (Heterophyllae) vesca, Fr. Dinedor, Vennwood, Holme Lacy, Eastnor, Brockhampton

 cyanoxantha (Schaeff.), Fr. Dinedor Common, Downton, Whiteliffe, Stoke Edith. Dinmore, Brock-Eastnor, hampton

- heterophylla, Fr. Mynde Park, Dinmore

var. galochroa, Fr. Eastnor, Brockhampton

- consobrina, Fr. Merryhill Common, Stoke Edith, Eastnor, Brockhampton

> var. sororia, Fr. West Malvern, Brockhampton

— foetens, Pers. Dinedor Common, Haywood Forest, Dinmore, Stoke Edith, Whiteliffe, Eastnor, Brockhampton

— fellea, Fr. Dinedor Common, Haywood Forest, Sunny Gutter, Stoke Edith, Eastnor, nr. Woolhope, Brockhampton

- Queletii. Fr. Whitfield

- (Fragiles) emetica, Fr. Dinedor Common, Haywood, Eastnor, Brockhampton, nr. Woolhope

- pectinata (Bull.), Fr. Breinton

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Russula (Fragiles) ochroleuca, Fr. Dinedor, Dinmore, Holme

Lacy, Eastnor, Brockhampton
— fragilis, Pers. Mynde Park, Dinedor Common, Haywood Forest, Downton, Sunny Gutter, Eastnor, Whitcliffe, Stoke Edith, Brockhampton

var. nivea, Čke. Stoke Edith, Brockhampton

violacea, var. Dinmore, Holme Lacy, Eastnor, Brockhampton var. fallax, Cke. Brockhampton

— citrina, Gillet. Dinmore, Brockhampton

- integra, Fr. Dinmore, Eastnor, Brockhampton

- aurata, Fr. Dinmore; nr. Colwall, Brockhampton

— nitida, Pers. Dinmore, Stoke Edith, Whitcliffe

var. cuprea, Krombh. Brockhampton

Britz. var. pulchralis, Holme Lacy

- puellaris, Fr. Eastnor, Brockhampton

— alutacea, Fr. Mynde Park, Haywood Forest, Holme Lacy, Brockhampton, Shobdon Court, Eastnor

— armeniaca, Cke. Relmont. Holme Lacy, Eastnor, Brockhampton

\*- lutea (Huds.), Fr. Dinmore, Haywood Forest, Whitfield, Downton, Dinedor, Eastnor, Brockhampton

Cantharellus cibarius, Fr. Haywood Forest, Rotherwas, Dinmore, Downton, Eastnor, Brockhampton, Whiteliffe

- aurantiacus, Fr. Haywood Forest, Dinmore, Whiteliffe, Stoke Edith, Brockhampton, Eastnor

— carbonarius (A. & S.), Fr. Merryhill, Sunny Gutter; nr. Garnstone, Dinmore

- umbonatus, Fr. Nr. Ludlow

— tubaeformis, Fr. Haywood Forest, Whitfield, Dinmore, Eastnor, Brockhampton var. lutescens, Fr. Stoke

Edith — infundibuliformis, Fr. Haywood Forest, Dinmore, Downton, Sunny Gutter nr. Lud-

low; nr. Colwall, Brockhamp-

ton - cinereus, Fr. Downton, Holme Lacy

\*- Houghtoni, Phillips. Holme Lacy

## HYMENOMYCETAE (cont.) AGARICACEAE (cont.)

Nyctalis asterophora, Fr. Haywood Forest, Dinmore, Lyonshall, Moor Court, Brockhampton, Dowards

- parasitica (Bull.), Fr. wood Forest, Rotherwas, Lyonshall, nr. Colwall, Brockhampton

Marasmius urens (Bull.), Fr. Haywood Forest, Dinmore, Caplar Hill

- peronatus (Bolt.), Fr. Dinedor Camp, Haywood Forest, Rotherwas, Credenhill, East-Dinmore, Whiteliffe, Brockhampton

- oreades (Bolt.), Fr. Common everywhere

- fuscopurpureus (Pers.), Fr. Dinmore

- erythropus, Fr. Ledbury, Whitfield, Brockhampton, Downton, Sufton Court

- impudicus, Fr. Merryhill Common

\*- scorodonius, Fr. Nr. Hereford

- Vaillantii, Fr. Woods West Malvern

— foetidus (Sow.), Fr. Haywood Forest, Holme Lacy, Dinmore, Downton, Eastnor

- ramealis (Bull.), Fr. Haywood, Forest, Rotherwas, Dinmore, Downton, Eastnor, Whiteliffe, Brockhampton

 cauticinalis (With.), Merryhill Common, Mynde Park

– cohaerens (A. & S.), Fr. Downton

- rotula (Scop.), Fr. Haywood Forest, Dinmore, Stoke Edith, Eastnor, Whitcliffe, Brockhampton

- androsaceus (Linn.) Fr. Dinmore, Holme Lacy, Haywood Forest, Eastnor, Whitcliffe, Brockhampton

\*- sclerotipes, Bres. 12 Belmont - splachnoides, Fr. Foxley

- Hudsoni (Pers.), Fr. Belmont, Foxley, Shobdon Court. Downton

\*- epichloe, Fr. Nr. Hereford

- epiphyllus, Fr. Dinmore, Rotherwas, Holme Lacy, Stoke Edith, Eastnor, Whiteliffe, Brockhampton

- polyadelphus, Lasch. Dinmore - spodoleucus, B. & Br. Rotherwas

Lentinus cochleatus, Fr. Dinedor, Eastnor, Brockhampton

- vulpinus, Fr. Nr. Hereford

12 On the authority of Dr. M. C. Cooke, see Trans. Brit. Myc. Soc. ii, 14.-C.R.

# HYMENOMYCETAE (cont.)

AGARICACEAE (cont.)

Panus conchatus, Fr. Sunny Gutter, nr. Ludlow, Holme Lacy

- torulosus, Fr. Mynde Park, Dinmore, Brockhampton

\*- stypticus, Fr. Belmont, Haywood Forest, Rotherwas, Down-Credenhill, Eastnor, Stoke Edith, Brockhampton

Lenzites betulina, Fr. Dinedor, Haywood Forest, Credenhill, Dinmore, Eastnor, Stoke Whitcliffe, Brockhampton

- heteromorpha, Fr. On an old post, apparently of fir, Sufton Court 13

#### POLYPORACEAE

Boletus luteus, Linn. Haywood Forest, West Malvern Firs, Eastnor, Brockhampton

- elegans (Schum.), Fr. Belmont, Haywood Forest, Lyonshall, Eastnor, Stoke Edith, Brockhampton

- flavus, With. Foxley, Belmont, Haywood . Forest

tenuipes, Cke. Pontrilasgranulatus, Linn. But Burghill Court, Credenbill, Merryhill Common, Haywood Forest, Eastnor, Brockhampton

- bovinus, Linn. Brockhampton - badius, Linn. Dinmore, Eastnor, Brockhampton, Shobdon Court

- piperatus, Bull. Haywood Forest, nr. Colwall, Brockhampton

- striaepes, Secr. Shobdon Court - chrysenteron, Fr. Belmont,

Dinedor, Haywood Forest, Dinmore, Downton, Whitcliffe, Eastnor, Stoke Edith, Brockhampton

- subtomentosus, Linn. Ledbury, Haywood Forest, Dinmore, Holme Lacy, Eastnor, Whit-cliffe, Stoke Edith, Brockhampton

- versicolor, Rost. Haywood Forest

- purpurascens, Rost. Dinmore

- pachypus, Fr. Downton - candicans, Fr. Whitcliffe

- edulis, Bull. Bryngwyn, Dinedor, Haywood Forest, Holme Lacy, Dinmore, Whiteliffe, Eastnor, Brockhampton var. laevipes. Stoke Edith, Brockhampton

- fragrans, Vitt. Nr. Garnstone

- impolitus, Fr. Brockhampton — aestivalis, Fr. Dinedor

18 See Grevillea, viii, 6.

## HYMENOMYCETAE (cont.) POLYPORACEAE (cont.)

Boletus luridus, Schaeff. Dinedor, Haywood Forest, Dinmore, Stoke Edith, Eastnor, Whitcliffe, Brockhampton

var. erythropus, Pers. Dinedor, Haywood Forest, Eastnor, Brockhampton

- purpureus, Fr. Dinmore - satanas, Lenz. Eastnor

- laricinus, Berk. Haywood Forest, Gredenhill, Dinmore, West Malvern, nr. Woolhope

- versipellis, Fr. Haywood Forest, Dinmore, Holme Lacy, Eastnor, Brockhampton

- scaber, Fr. Burghill Court, Haywood Forest, Credenhill, Dinmore, Dinedor, Stoke Edith, Eastnor, Whiteliffe, Brockhampton

- felleus, Bull. Vennwood, Eastnor, Brockhampton

Bull. - castaneus, Haywood Forest, Brockhampton

Strobilomyces strobilaceus (Scop.) Haywood Forest, Berk. Downton, Whitcliffe, Din-

Fistulina hepatica, Fr. Haywood Forest, Holme Lacy, Downton, Moccas, Whitfield, Eastnor, Brockhampton, Stoke Edith

Polyporus Schweinitzii, Fr. Dinmore, Mynde Park

- rufescens, Fr. Orchard nr. Ledbury, Brockhampton

(Huds.), - squamosus Common everywhere

- picipes, Fr. Holme Lacy - varius, Fr. Credenhill

- frondosus, Fr. Whitfield, nr.

- intybaceus, Fr. Sufton Court, Brockhampton

- giganteus, Fr. Haywood Forest, Gredenhill, Dinmore, Brockhampton, nr. Woolhope

- sulphureus, Fr. Breinton, nr. Hereford, Eastnor, Brockhampton

- dryadeus, Fr. Holme Lacy, Whiteliffe, Eastnor, nr. Fownhope, Stoke Edith

- hispidus, Fr. Dinedor, Colwall, nr. Bromyard, Castle Green, Hereford

- cuticularis, Fr. Holme Lacy

- nidulans, Fr. Rotherwas, Dinmore, Downton, Lyonshall - mollis, Fr. Dinmore

— destructor, Fr. Nr. Hereford - rutilans, Fr. Whitfield

betulinus, Fr. Downton, Moccas, Eastnor, Holme Lacy, Brockhampton

HYMENOMYCETAE (cont.) POLYPORACEAE (cont.)

Polyporus adustus, Fr. Dinedor, Dinmore, Downton, Holme Lacy, Stoke Edith, Eastnor, Whiteliffe, Brockhampton

- chioneus, Fr. Rotherwas, nr. Colwall

- caesius, Fr. Haywood Forest, Foxley, Lyonshall, Eastnor, Brockhampton

-- spumeus, Fr. Nr. Hereford

- lacteus, Fr. Eastnor

- fragilis, Fr. Dinmore, Eastnor, Brockhampton

- fibula, Fr. Holme Lacy Polystictus perennis, Fr. Whit cliffe, Dinmore, nr. Ledbury

- versicolor (Huds.), Fr. Common everywhere

- radiatus (Sow.), Fr. Nr. Ludlow, above Tenbury

- hirsutus, Fr. Holme Lacy. Eastnor, Brockhampton

- abietinus, Fr. Eastnor

Fomes lucidus, Fr. Dinmore,
Foxley, Eastnor, Shobdon
Court, Stoke Edith, Moccas

- ulmarius, Fr. Holme Lacy, nr. Colwall

— connatus, Fr. Holme Lacy, Brockhampton

- fomentarius, Fr. Holme Lacy, Eastnor, Brockhampton

- igniarius, Fr. Hereford, Colwall, Bromyard, Leominster

— nigricans, Fr. Nr. Ludlow
— fraxineus, Fr. Moccas, Leo-

minster

- annosus, Fr. Dinedor Camp, Eastnor, Brockhampton

- applanatus (Wallr.), Fr. Whitfield, Haywood Forest, Stoke Edith

- ferruginosus (Fr.). Mass. Holme Lacy, Eastnor, Brockhampton

Poria vaporaria, Fr. Common everywhere

- mollusca, Fr. Downton, Brockhampton

- vulgaris, Fr. Haywood Forest, Downton

— medulla-panis, Fr. Dinmore, Eastnor

- hibernica, B. & Br. Nr. Colwall, Brockhampton

– reticulata, Fr. On putrid wood, Hereford

- sanguinolenta (A. & S.), Fr. Breinton

- violacea, Fr. Dr. Bull's List, 1873

Trametes gibbosa, Fr. Dinmore - suaveolens, Fr. Holme Lacy, Stifford's Bridge, nr. Ludlow

- serpens, Fr. Brockhampton

## HYMENOMYCETAE (cont.) POLYPORACEAE (cont.)

Trametes mollis (Somm.), Fr. Downton

Daedalea quercina (Linn.), Pers. Eastnor, Rotherwas

- aurea, Fr. Moccas

Merulius lacrymans, Fr. Belmont, Ledbury, nr. Bromyard

- tremellosus, Schrad. Leintwardine, Eastnor, Brockhampton

- corium, Fr. Foxley, nr. Colwall. Brockhampton, Whiteliffe, Holme Lacy, Dinedor

- pallens, Berk. Downton

#### HYDNACEAE

Hydnum repandum, Linn. Dinedor, Haywood Forest, Dinmore, Downton, Whitfield, Eastnor, Brockhampton var. rufescens,

Brockhampton, Haywood Forest, Whitcliffe

- zonatum, Batsch. Whiteliffe Wood

- auriscalpium, Linn. Belmont, Dinmore, nr. Colwall, Brockhampton

- erinaceum, Bull. Haywood Farm - ochraceum, Pers. Whitcliffe,

Eastnor, Brockhampton - alutaceum, Fr. Holme Lacy,

Eastnor, Belmont

- udum, Fr. Mynde Park

- niveum, Pers. Nr. Colwall, Brockhampton

- farinaceum, Pers. E. Stoke Edith, Whitcliffe Eastnor,

Sistotrema confluens, Pers. Vennwood

Irpex obliquus, Fr. Stoke Edith. Eastnor, Brockhampton, Whit-

Radulum orbiculare, Fr. Foxley, Haywood Forest, Brockhamp-

- fagineum, Fr. Foxley Phlebia merismoides, Fr. Vennwood, Whitfield, nr. Colwall

- radiata, Fr. Moccas, Brockhampton

Grandinia granulosa, Fr. Dinmore, Haywood Forest, Holme Lacy, Eastnor, Whiteliffe, Brockhampton

- ocellata, Fr. Downton

— crustosa, Fr. Brockhampton, Eastnor

Kneissia setigera, Fr. Fungus Show, 1873

#### THELEPHORACEAE

Solenia anomala, Fr. Colwall, Dinmore, Downton, Brockhampton

## HYMENOMYCETAE (cont.)

THELEPHORACEAE (cont.)

Solenia ochracea, Pers. Credenhill, Moccas

Craterellus cornucopioides, Pers. Haywood Forest, Dinmore, Whiteliffe, Eastnor, Brockhampton

- sinuosus, Fr. Rotherwas

- crispus, Fr. Rotherwas, Vennwood, Brockhampton

Stereum multizonatum, B. & Br. Moccas

- hirsutum, Fr. Common everywhere

— ochroleucum, Fr. Ledbury, Stoke Edith, nr. Colwall

- purpureum, Pers. Downton, Dinmore, Haywood Forest, Holme Lacy, Stoke Edith, Eastnor

- sanguinolentum, Fr. Holme Lacy

- rugosum, Fr. Moccas, Dinmore, Rotherwas, Holme Lacy, Stoke Edith, Eastnor, Brockhampton

- spadiceum, Fr. Holme Lacy,

Dinmore, nr. Colwall

vorticosum, Fr. Nr. Colwall, nr. Kington

Corticium calceum, Fr. Stifford's Bridge, nr. Ledbury, The Ridgeway

- lacteum, Fr. Nr. Colwall, Eastnor, Brockhampton

- laeve, Pers. Dinmore, Hollybush Hill

- nudum, Fr. Eastnor, Brockhampton

- arachnoideum, Berk. Haywood Forest, Dinmore, Eastnor, Brockhampton

- sambuci, Fr. Holme Lacy, Dinedor, Dinmore, Eastnor, Brockhampton

- lactescens, Fr. Nr. Hereford, Dinedor

- sanguineum, Fr. Haywood Forest, Stoke Edith, Whitfield, Brockhampton

- caeruleum, Fr. Dinmore, Whitcliffe, Brockhampton

- comedens, Fr. Haywood Forest, Holme Lacy, Credenhill, Eastnor, Brockhampton

- epiphyllum, Pers. Downton 14 Hymenochaete rubiginosa (Fr.), Stoke Lév. Dinmore, Edith, Eastnor, Brockhampton, Caplar Hill

— tabacina (Fr.), Lév. Holme Lacy, nr. Colwall, Brockhampton, Whiteliffe

14 Trans. Woolhope Club, 1889, p. 381; and 1890, p. 105.

#### HYMENOMYCETAE (cont.)

THELEPHORACEAE (cont.)

Peniophora quercina (Fr.), Cke. Dinmore, Dinedor, Holme Lacy, Stoke Edith, Eastnor, Whiteliffe

- gigantea (Berk.), Mass. Eastnor, Brockhampton

- rosea (Pers.), Mass. Colwall

— incarnata (Fr.), Mass. Haywood Forest, nr. Colwall, Brockhampton

- ochracea (Fr.), Mass. Colwall, Whithourne

- cinerea (Fr.), Cke. Dinmore, Dinedor, Holme Lacy, Stoke Edith, Eastnor, Brockhampton

- velutina (Fr.), Cke. Moccas, nr. Colwall, Brockhampton

- pubera (Fr), Mass. Hereford Cyphella capula, Fr. Dinmore, Eastnor, Brockhampton

- galeata, Fr. Moccas, Sufton Court

- villosa (Pers.), Karst. Dinmore, Sunny Gutter, Whitfield

— albo-violascens, Karst. (= Curreyi B. & Br.). Dinmore Thelephora Sowerbeii, B. & Br.

Vennwood, Whiteliffe, Whitfield Park, Dinmore, Dowards

- caryophyllea, Pers. Haywood Forest

- anthocephala, Fr. Dinmore, Brockhampton

- clavularis, Fr. Dinmore

- laciniata, Pers. Dinmore, nr. Colwall, Brockhampton

Coniophora puteana, Fr. Dinmore, Rotherwas, Eastnor, Brockhampton, Holme Lacy

Soppittiella sebacea (Pers.), Mass. Eastnor

- fastidiosa (Fr.), Mass. Dinmore, Sufton Court, nr. Colwall

- cristata (Fr.), Mass. more, Brockhampton

- crustacea (Schum.), Mass. Eastnor

#### CLAVARIACEAE

Clavaria botrytes, Pers. Dozunton - amethystina, Bull. Nr. Ludlow, Downton, Brockhampton, Eastnor

— fastigiata, Linn. Ludlow. Stoke Edith, Eastnor, nr. Colwall

- muscoides, Linn. Nr. Belmont, Holme Lacy, Eastnor, Brockhampton

- curta, Fr. Holme Lacy, Moccas Lawn

- coralloides, Linn. Downton, Ludlow

# HYMENOMYCETAE (cont.) CLAVARIACEAE (cont.)

Clavaria cinerea, Bull. Gredenhill, Whitfield, Dinmore, Haywood Forest, Holme Lacy, Eastnor, Brockhampton

— umbrinella, Sacc. (= umbrina, Berk.). Moccas Court

cristata, Holmsk. Haywood
 Forest, Rotherwas, Dinmore,
 Eastnor, Brockhampton

- rugosa, Bull. Hayevood Forest, Holme Lacy, Lyonshall, nr. Colwall, Brockhampton

- Kunzei. Holme Lacy

subtilis, Pers. Dinmore 16
 aurea, Schaeff. Downt

- aurea, Schaeff. Downton,

Seager Hill

formosa, Pers. Stoke Edith

- formosa, Pers. Stoke Edith
- abietina, Schum. Foxley,
Coney Green Ledbury, Eastnor

- flaccida, Fr. Downton, Seager Hill, Brockhampton

- stricta, Pers. Rotherwas

— rufa, Fl. Dan. Holme Lacy Park, Dinmore, Garnstone Park, Moccas

- rosea, Fr. Moccas Park

 fusiformis, Sow. Dinmore,
 Dinedor, Holme Lacy, Eastnor, Brockhampton

 dissipabilis, Britz. Haywood Forest, Holme Lacy, Eastnor

 inaequalis, Fl. Dan. Dinedor Camp, Whiteliffe, nr. Colwall, Brockhampton

— luteo-alba, Rea. Brockhampton 16

-- argillacea, Fr. Dowards
-- vermicularis, Scop. Creden-

- vermicularis, Scop. Credenhill, Eastnor, Brockhampton

- fragilis, Holmsk. Dinmore, Holme Lacy, Brockhampton

- Michelii, Rea. Dinmore 17 - fumosa, Pers. Dinmore

 pistillaris, Linn. Rotherwas, Downton, Whitfield, Eastnor, Sufton Court, Dowards

— contorta, Holmsk. Foxley Pistillaria tenuipes (B. & Br.), Mass. Eastnor

-- quisquiliaris, Fr. Dinmore, Holme Lacy

-- puberula, Berk. Haywood Forest, Rotherwas

Typhula erythropus, Fr. Brockhampton, Belmont, Dinmore

- phacorrhiza, Fr. Nr. Backbury

#### TREMELLACEAE

Auricularia mesenterica, Fr. Lugwardine, Rotherwas, Holme Lacy, Stoke Edith, Eastnor, Brockhampton

See Trans. Brit. Myc. Soc. ii, 39.
 Ibid. p. 66.
 Ibid. p. 39.

# HYMENOMYCETAE (cont.)

TREMELLACEAE (cont.)

Hirneola auricula-judae, Berk. Nr. Colwall, Brockhampton

Exidia glandulosa, Fr. Downton, Moccas, Dinmore, Brockhampton

- albida (Huds.), Bref. Foxley, Eastnor, Brockhampton

Ulocolla foliacea (Pers.), Bref. Foxley

Tremella lutescens, Pers. Dinmore, Haywood Forest, nr. Golwall, Brockhampton

— mesenterica, Retz. Haywood Forest, Eastnor, Whiteliffe, Brockhampton

- intumescens, Eng. Bot. Foxley

epigaea, B. & Br. Credenhill
 tubercularia, Berk. Dinmore,
 Brockhampton, Whiteliffe

Naematelia encephala, Fr. Dinmore
— virescens, Cda. Eastnor Park
Dacryomyces deliquescens, Duby.
Dinmore, nr. Colwall, East-

nor, Brockhampton

— stillatus, Nees. Downton, nr. Bromyard, Eastnor, Colwall

Calocera viscosa, Fr. Haywood Forest, Dinmore, West Malvern, Eastnor, Brockhampton

- cornea, Fr. Haywood Forest
- stricta. Fr. Dinmore Fastnor

— stricta, Fr. Dinmore, Eastnor, Brockhampton

#### GASTROMYCETAE Nidulariaceae

Cyathus striatus, Hoffm. Haywood

Forest, Eastnor, Brockhampton
— vernicosus, DC. Dinmore,
Downton, Stoke Edith

Crucibulum vulgare, Tul. Dinmore, Holme Lacy, Shobdon

Sphaerobolus stellatus. Tode.

Haywood Forest, Dinmore,

Holme Lacy, Brockhampton

#### LYCOPERDACEAE

Lycoperdon echinatum, Pers.

Dinmore, Belmont, Downton

- Hoylei, Berk. Stoke Edith, West Malvern Woods

— excipuliforme, Scop. Holme Lacy Park, Stoke Edith, Eastnor, Brockhampton

- saccatum, Vahl. Colwall,
Bringsty Common

- gemmatum, Batsch. Belmont, Eastnor, Brockhampton

pyriforme, Schaeff. Belmont,
 Haywood Forest, Colwall,
 Brockhampton, Whitcliffe

- perlatum, Pers. Dinmore, Dinedor, Holme Lacy, Eastnor, Brockhampton

## GASTROMYCETAE (cont.)

LYCOPERDACEAE (cont.)

Lycoperdon caelatum, Bull. Pontrilas, Eastnor, Stoke Edith, Brockhampton

— bovista, Linn. Nr. Hereford, Whitbourne Hall, Sufton, nr. Woolhope

Bovista plumbea, Pers. Whiteliffe, Pontrilas, Stoke Edith, Holme Lacy, Eastnor, Brockhampton

— nigrescens, Pers. Ludlow, Ĉowleigh Park, Holme Lacy, Eastnor, Brockhampton

Geaster Bryantii, Berk. Haywood
Forest

 fornicatus (Huds.), Fr. Cubberley nr. Ross.

- rufescens, Pers. Dinmore,

- fimbriatus, Fr. Eastnor Park,
Bringsty Common, Dinmore,
Brockhampton

#### SCLERODERMACEAE

Scleroderma vulgare, Fr. Burghill
Court, Dinedor, Stoke Eaith,
Eastnor, Brockhampton, Whitcliffe

— verrucosum, Pers. Dinedor,
Dinmore, Whiteliffe, Eastnor,
Stoke Edith. Brockhampton

Stoke Edith, Brockhampton — geaster, Fr. Nr. Hereford

#### PHALLACEAE

Ithyphallus impudicus (Linn.),
Fisch. Haywood Forest,
Downton, Sunny Gutter nr.
Ludlow, Dinmore, Eastnor,
Brockhampton

Mutinus caninus (Huds.), Fisch.

Haywood Forest, Dinmore,
Foxley, Brockhill, Eastnor,

Stoke Edith

#### UREDINACEAE

Uromyces fabae (Pers.), Wint.

Ludlow, Tarrington. On
Faba vulgaris

valerianae (Schum.), Wint.
 Nr. Hereford. On valerian

— dactylidis, Otth. Whitfield.
On Dactylis

— pisi (Pers.), Wint. Common.
On peas

- ficariae (Schum.), Wint. Ross, Colwall, Whitfield. On Ranunculus ficaria

--- scillarum (Grev.), Wint. Croft Wood. On Scilla festalis

- scrophulariae (DC.), Wint.

Dinmore. On Scrophularia

nodosa

- viciae, Fckl. Hereford. On Vicia

#### . UREDINACEAE (cont.)

Puccinia galii (Pers.), Wint. Whitchurch. On Galium

— lapsanae (Schultz.), Fckl. Dinmore, Colwall. On Lapsana

— pulverulenta, Grev. Dinmore. On Epilobium

— violae (Schum.), Wint. Dinmore, Eastnor, Croft Wood, Whitfield. On violets

— albescens (Grev.), Cke. Nr. Hereford. On Adoxa

— pimpinellae (Strauss.), Wint. Nr. Storridge Church, Brockbill. On Heracleum

— menthae, Pers. West Malvern. Common. On Mentha

— saniculae, Grev. Nr. Hereford. On Sanicula

— graminis (Pers.). Common.
 On corn and grasses

— coronata, Cda. Nr. Hereford. On grass

— phalaridis, Plow. Beyond

Purlieu Lane; nr. Leominster.

On Arum and Phalaris

rubigo-vera (DC.), Wint.
 Stoke Edith; nr. Colwall.
 On Bromus and Triticum

poarum, Nielsen. Canal bank,
 Hereford, Vinesend, Eastnor.
 On Tussilago and Poa

caricis (Schum.), Wint. Nr.
 Hereford, Holme Lacy. On
 Carex riparia

 suaveolens (Pers.), Wint. Colwall, Eastnor; nr. Bromyard.
 On thistles

— bullata (Pers.), Schröt. Pontrilas. On Silaus

— polygoni, Pers. Breinton,
Dinmore. On Polygonum
amphibium

iridis (DC.), Wint. Breinton.On Iris

— glumarum (Schum.). Nr. Colwall, Stoke Edith. On wheat

- pruni, Pers. Hereford. On plum leaves

- lychnidearum, Link. Nr Hereford. On Lychnis

chrysanthemi, Roze. Ledbury,
 Eastnor, Hereford. On
 Chrysanthemum Sinense

**PYRENOMYCETAE** 

PERISPORIACEAE

Sphaerotheca pannosa (Wallr.),

- castagnei, Lév. Common. On

Erysiphe Martii, Lév. Nr. Here-

Hypericum, &c.

hops

Lév. Common. On roses

ford, Stoke Edith. On peas,

#### UREDINACEAE (cont.)

Puccinia betonicae (A. & S.), Wint. West Malvern. On Stachys Betonica

- fusca(Relhan), Wint. West Malvern. On Anemone nemorosa

— arenariae (Schum.), Wint. Hereford. On Arenaria trinervis

— malvacearum, Mont. Ledbury, Colwall, Bromyard. On Malva

— circaeae, Pers. Dinmore. On Circaea

veronicarum, DC. Lyonshall
 Wood. On Veronica

— glechomatis, DC. Downton.
On Nepeta Glechoma

— annularis (Strauss.), Wint.

Downton. On Teucrium

Scorodonia

Triphragmium ulmariae (Schum.), Wint. Eastnor, Brockhampton. On Spiraea ulmaria

Phragmidium fragariastri (DC.), Schröt. Dinmore, Eastnor, The Gullet, Sapey Brook. On Potentilla fragariastrum

— potentillae (Pers.). Schröt.

Pontrilas. On Potentilla

violaceum (Schultz.), Schrot.
 The Ridgeway, Brockhampton. On Rubus fruticosus

— rubi (Pers.), Schröt. Dinedor, Stoke Edith. On Rubus fruticosus

-- subcorticatum (Schrank.) Schröt.

Stoke Edith, The Gullet, Groft
Wood. On Rosa canina

Endophyllum euphorbiae (DC.), Wint. Groft Wood, The Ridgeway. On Euphorbia Amygdaloides

— leucospermum (DC.), Sopp.

Whitman's Hill Wood. On
Anemone nemorosa

Gymnosporangium sabinae (Dicks.), Wint. Hereford. On Savin

Melampsora helioscopiae (Pers.), Wint. *Golwall*. On *Eu*phorbia helioscopia

— lini (Pers.), Wint. Stoke Edith. On Linum catharticum

— farinosa (Pers.), Schröt. Dinmore. On Salix Capraea

#### UREDINACEAE (cont.)

Melampsora aecidioides (DC.), Schröt. Dinmore Hill. On Populus

 Rostrupii, Wagner. Croft Wood, The Ridgeway. On Mercurialis perennis

- hypericorum (DC.), Wint. Dinmore. On Hypericum

— circaeae (Schum.), Wint. Dinmore. On Circaea

vacciniorum (Link), Schröt.
 Lyonshall Wood. On Vaccinium myrtillus

Melampsoridium betulinum (Pers.), Kleb. Eastnor, Brockhampton. On Betula alba

Coleosporium senecionis (Pers.), Wint. Eastnor, Brockhampton. On Senecio

— sonchi (Pers.), Schröt. Canal bank, Hereford. On Tussilago and Sonchus

— campanulae (Pers.), Wint. Colwall. On Campanula rotundifolia

Uredo Mülleri, Schröt. Dinmore, Holme Lacy, Croft Wood, Brockhampton. On Rubus fruticosus

Milesia scolopendri (Fckl.), B. White. Ledbury. On Scolopendrium

#### USTILAGINACEAE

Ustilago longissima (Sow.), Tul.

Dinmore. On Glyceria

— hypodytes (Schlecht.), Fr.

— hypodytes (Schlecht.), Fr Croft Wood. On Triticum

- segetum (Bull.), Wint. Common. On Avena sativa

— bromivora, Tul. Nr. Hereford. On Bromus

— utriculosa (Nees.), Tul. Dinmore. On Polygonum

Tilletia striaeformis (Westd.), Schröt. Ross. On Dactylis Urocystis anemones (Pers.), Schröt. Ross, Whitfield. On wood anemone and Ranunculus

violae (Sow.), Schröt. Croft
 Wood. On Viola odorata
 Schinzia alni, Woron. Dinmore.

On alder roots

#### ASCOMYCETAE

#### PYRENOMYCETAE (cont.)

Perisporiaceae (cont.)

Erysiphe communis (Wallr.), Link and Rabh. Common. On various leaves

— galeopsidis, DC. Dinmore.
On plantain

Microsphaera euonymi(DC.), Sacc. Nr. Dinedor. On Euonymus

# PYRENOMYCETAE (cont.)

Perisporiaceae (cont.)

Uncinula salicis (DC.), Wint.

Downton. On willow and poplar leaves

— aceris (DC.), Sacc. Hampton Ct.

Eastnor. On maple leaves

Phyllactinia suffulta (Rebent.), Sacc. Holme Lacy. On hazel

## PYRENOMYCETAE (cont.) PERISPORIACEAE (cont.)

Eurotium herbariorum (Wigg), Link. Eastnor, Brockhamp-

ton. On Campanula Penicillium crustaceum (Linn.), Fr. Hereford

#### HYPOCREACEAE

Eleutheromyces subulatus (Tode). Fckl. Moccas. On Agarics Gibberella pulicaris (Fr.), Sacc. Common on elder, &c.

- cyanogena (Desm.), Sacc. Stoke Edith. On rotten cabbage stalks

Calonectria flavida (Cda.), Sacc. Nr. Hereford. On stumps Nectria cinnabarina (Tode), Fr. Common

- sinopica, Fr. Dinmore, Downton. On ivy

- coccinea (Pers.), Fr. Holme Lacy, Brockhampton

- ditissima, Tul. Common in orchards. On beech

- inaurata, B. & Br. Malvern

Dialonectria sanguinea (Sibth.), Wint. Common. wood

 episphaeria (Tode), Wint. Dinmore, Downton, Brockhampton. On Diatrype stigma, &c.

- peziza (Tode), Sacc. Holme Lacy, Dinmore. On Polyporus squamosus and stumps

- aurea (Grev.), Sacc. Moccas, Hereford. On dead holly Hypomyces chrysospermus Tul. Croft Wood, Stoke Edith,

Eastnor, Brockhampton. On

- asterophorus Tul. Rotherwas, Haywood Forest, Dinmore 18

- lateritius (Fr.), Tul. Merryfield Common, Whitfield. On Lactarius deliciosus

- torminosus (Mont.), Tul. Dinmore Hill, Whitfield. On Lactarius torminosus and pubescens

-- rosellus (A. & S.), Tul. Dinmore, Downton

- aurantius (Pers.), Tul. Eastnor. On Polyporus squamosus

- luteovirens, Fr. Merryhill Common. On Lactarius deliciosus

- aureonitens, Tul. Moccas. On Stereum

- Berkeleyanus, Plow. & Cke. Downton. On Stereum

18 According to Brefeld, this is only the conidial condition of Nyctalis asterophora, Fr.

# PYRENOMYCETAE (cont.) HYPOCREACEAE (cont.)

Hypomyces cervina, Tul. Sufton Court (conidia). On Peziza macropus

- tuberosa, Tul. Nr. Hereford. On Lactarius

- miliarius, Tul. Hereford. On Russula

Hypocrea rufa (Pers.), Fr. Vennwood, Dinmore, Downton. On branches

- tremelloides (Schum.), Fr. Hereford, Dinmore, Sufton. On wood

- contorta (Schw.), B. & C. Foxley. On oak

- gelatinosa (Tode), Fr. Dinmore. On rotten wood, especially elder

- alutacea (Pers.), Tul. Nr. Hereford, Dinmore. On the ground

- delicatula, Tul. Nr. Hereford, Garnstone. On fir trunks

- strobilina, Plow. Fr. Hereford. On cones of spruce

Polystigma rubrum (Pers.), DC. Colwall, Brockhampton

Epichloe typhina (Pers.), Tul. Eastnor, Stoke Edith, Brockhampton. On living grasses

Claviceps purpurea (Fr.), Tul. Nr. Colwall. On corn and grasses

- nigricans, Tul. Moccas. On Eleocharis

Cordyceps militaris (Linn.), Link. Dinedor, Dinmore. On pupae

- ophioglossoides (Ehr.), Link. Dinmore, Downton. Elaphomyces

#### SPHAERIACEAE

Sordaria fimicola (Rob.), Ces. & de Not. Nr. Hereford. On horse dung

- minima, Sacc. & Speg. Whitcliffe. On horse dung

Coleroa potentillae (Fr.), Wint. Pontrilas. On leaves of Potentilla reptans

Trichosphaeria barbula (B. & Br.), Wint. Holme Lacy. On pine bark

Leptospora spermoides (Hoffm.), Fckl. Dinmore, Downton. On dead wood

- ovina (Pers.), Fckl. Haywood Forest, Whitfield. On rotten wood

- canescens (Pers.), Wint. Eastnor. On dead stump

Chaetosphaeria cupulifera, B. & Br. Hereford. On chips

- innumera (B. & Br.), Tul. Nr. Hereford, Whitfield. On wood

## PYRENOMYCETAE (cont.) SPHAERIACEAE (cont.)

Rosellinia aquila (Fr.), de Not. Credenhill, Dinmore. On fallen branches

- mammiformis (Pers.), Wint. Whitfield

lveracea (Ehrh.),
Whitfield. On chips --- pulveracea

- clavariae (Tul.), Wint. Rotherwas, Eastnor, Croft Wood, Brockhampton On Clavariae

Bombardia fasciculata, Fr. Whitfield. On chips

Bertia moriformis (Tode), de Not. Foxley, Downton. On dead

Melanopsamma poecilostoma, B. & Br. Merryhill Common. On furze

Melanomma pulvis-pyrius (Pers.), Fckl. Common. On dead wood and branches

Ceratostomella cirrhosa (Pers.), Sacc. Holme Lacy. On dead wood

Trematosphaeria pertusa (Pers.), Fckl. Dinmore. On wood

- mastoidea (Fr.), Wint. Dinmore. On honeysuckle Cucurbitaria berberidis (Pers.),

Gray. Leominster. On barberry

Stigmatea robertiani, Fr. Pontrilas. On leaves of Geranium Robertianum

Sphaerella aquilina (Fr.), Auersw Dinmore. On Pteris

- peregrina, Cke. Nr. Ross. On Rubia peregrina

— punctiformis (Pers.), Sacc. Haywood Forest. On chestnut leaves

- maculiformis (Pers.), Auersw. Haywood Forest. On oak leaves

Laestadia epilobii (Wallr.), Sacc. Dinmore. On Epilobium

Sphaerulina myriadea (DC.), Sacc. Downton. On oak leaves

Physalospora euphorbiae, Plow. Dinmore. On Euphorbia

Venturia rumicis (Desm.), Wint. Dinedor. On dock leaves

- maculaeformis (Desm.), Wint. Dinmore. On Epilobium

Leptosphaeria rusci (Wallr.), Sacc. Breinton. On Ruscus

- doliolum (Pers.), Ces. & de Not. Dozunton. On Umbelliferae

acuta (Moug. & Nestl.), Karst. Holme Lacy. On nettles Didymella tosta (B. & Br.), Sacc.

Dinmore. On Epilobium

Metasphaeria complanata (Tode), Sacc. Rotherwas. On herbs

## PYRENOMYCETAE (cont.) SPHAERIACEAE (cont.)

Pleospora vulgaris, Niessl. Dinmore. On Dipsacus

- herbarum (Pers.), Rabh. Common. On herbs

Ophiobolus acuminatus (Sow.), Duby. Rotherwas. On thistles

- porphyrogonus (Tode), Sacc. Gredenhill. On herb stems.

Anthostomella appendiculosa (B. & Br.), Sacc. Belmont. On bramble

Clypeosphaeria clypeata, Nees. Belmont. On bramble

Ditopella fusispora, de Not. Dinmore. On alder branches

Gnomonia setacea (Pers.), Ces. & de Not. Stoke Edith. On maple petioles

- vulgaris, Ces. & de Not. Din-

more. On hazel leaves Diaporthe inquilina (Wal (Wallr.), Nke. Downton. On Umbelliferae

- Desmazieri, Niessl. Dinmore. On Prunella

— protracta, Nke. Dinmore. On maple

- pulla, Nke. Common. On ivy — alnea, Fckl.

Dinmore. On alder

— pinophylla, Ph. & Pl. Belmont. On pine leaves

— euphorbiae, Čke. Dinmore. On Euphorbia

-- leiphemia (Fr.), Sacc. Credenhill. On oak

— strumella (Fr.), Fckl. On currant, &c.

- syngenesia (Fr.), Fckl. Dinmore. On Sambucus

Mamiania fimbriata (Pers.), Ces. & de Not. On living hornbeam leaves

Eutypa spinosa (Pers.), Tul. Docunton, Dinmore. On beech

- Acharii, Tul. Downton. On dead branches

- flavovirescens (Hoffm.), Sacc. Common. On branches
— lata (Pers.), Tul. Common.

On branches

Cryptosphaeria eunomia (Fr.), Fckl. Breinton, Dinmore. On ash branches

Eutypella stellulata (Fr.), Sacc. Dinmore. On branches

- prunastri (Pers.), Sacc. Garfield. On Prunus spinosa

Euvalsa ambiens (Pers.), Nke. Common. On hawthorn

Leucostoma Persoonii, Nke. Dinmore. On branches

## PYRENOMYCETAE (cont.) SPHAERIACEAE (cont.)

Anthostoma melanotes (B. & Br.), Sacc. Dinmore, Holme Lacy. On wood

- xylostei (Pers.), Sacc. Dinedor. On honeysuckle

- turgidum (Pers.), Wint. Moccas. On beech

- gastrinum (Fr.), Nke. Downton. On elm

Fuckelia Plowrightii, Niessl. Nr. Hereford. On ulex

Melancomis stilbostoma (Fr.), Tul. Dinmore. On birch

- alni, Tul. Dinmore. alder

Calosphaeria princeps, Tul. Dinmore. On birch

Tul. Quaternaria Persoonii, Common. On beech

Diatrypella quercina (Pers.), Nke. Belmont, Haywood Forest, Brockhampton. On oak branches

— Tocciaeana, de Not. Dinmore. On alder

Diatrype stigma (Hoffm.), Fr. Belmont, Eastnor, Haywood Forest, &c. On bark

- disciformis (Hoffm.), Fr. Eastnor, Whitfield. On dead branches

- bullata (Hoffm.), Fr. Nr. Hereford. On willow

Hypoxylon udum (Pers.), Fr. Foxley, Downton, Holme Lacy. On rotten wood

- serpens (Pers.), Fr. Whitfield, Moccas Park. On dead wood

- multiforme, Fr. Downton, Brockhampton, Eastnor. On birch, &c.

- cohaerens (Pers.), Fr. Downton. On beech

— fuscum (Pers.), Fr. Haywood Forest, Holme Lacy, Eastnor, Stoke Edith, Brockhampton. On hazel

- coccineum, Bull. Haywood Forest, Downton, Moccas, Stoke Edith. On beech

Daldinia concentrica (Bolt.), Ces. and de Not. Belmont, Sufton Court, Holme Lacy, nr. Colwall, Brockhampton. On ash and birch

Ustulina vulgaris, Tul. Downton, Haywood Forest, Holme Lacy, Eastnor. On rotten wood

Poronia punctata (Linn.), Fr. Brockhampton, Lyonshall. On horse dung and decaying corduroy breeches

Xylaria hypoxylon (Linn.), Grev. Very common. On stumps and pales

# PYRENOMYCETAE (cont.)

SPHAERIACEAE (cont.)

Xylaria carpophila (Pers.), Fr. Whitfield, Eastnor, Brockhampton. On beech mast

— polymorpha (Pers.), Grev. Sufton Court, Eastnor, Brockhampton. On stumps

#### DOTHIDEACEAE

Phyllachora graminis (Pers.), Fckl. Common. On grasses

- junci (Fr.), Fckl. Cowarne Court. On rushes

- podagrariae (Roth), Karst. Dinmore Hill. On goutweed

- angelicae (Fr.), Fckl. Din-

- trifolii (Pers.), Fckl. Belmont. On clover

Dothidella betulina (Fr.), Sacc.

Common. On birch leaves

— ulmi (Duv.), Wint. Holme Lacy. Common. On elm leaves

Dothidea ribesia (Pers.), Fr. Stoke Edith, Holme Lacy. On currant branches

— tetraspora, B. & Br. Hereford. On dead ulex

Rhopographus pteridis (Sow.), Wint. Common. bracken

Rhytisma acerinum (Pers.), Fr. Common. On living sycamore leaves

- punctatum (Pers.), Fr. Eastnor, Whitchurch. On living sycamore leaves

- salicinum (Pers.), Fr. Dinmore. On living willow leaves

#### ELAPHOMYCETACEAE

Elaphomyces granulatus, Brockhampton

 variegatus, Vitt. (= muricatus, Eng. Fl.). Dinmore, Down-

#### CENOCOCCACEAE

Cenococcum geophilum, Fr. Downton

#### Tuberaceae

HolmeTuber aestivum, Vitt. La:y

— puberulum, B. & Br. II hitfield

# Balsamia ? sp. Sufton Court 19

#### Hysteriaceae

Hysterium pulicare, Pers. Whitfield, Eastnor, Brockhampton. On oak and birch

19 See Trans. Woolhope Club, 1878, p. 113.

## PYRENOMYCETAE (cont.) HYSTERIACEAE (cont.)

Hysterium angustatum, A. & S. Whitfield. On rose

Hysterographium Rousselii (de Not.), Sacc. Belmont. On dead wood

Dichaena quercina (Pers.), Fr. Eastnor, Dinmore. On living oak bark

- faginea, Fr. Brockhampton. On beech bark

#### DISCOMYCETAE

#### HELVELLACEAE

Morchella Smithiana, Cke. Bridstow, Dadnor nr. Ross, Pepper Mill Lane

-- esculenta, DC. Byford Mitrophora semilibera, Lév. Dadnor, Bridstow

Helvella crispa (Scop.), Fr. Hampstead, Dinmore, Old Brockhampton, Rotherwas

- lacunosa, Afz. Sufton Court, Dinmore, Whitcliffe Wood, nr. Hereford

- sulcata, Afz. Sufton Court, Whitfield

Rotherwas, elastica. Bull. Sufton Court, Whitfield, Brockhampton

- ephippium, Lév. Rotherwas, Sufton Court, Thruxton

- macropus (Pers.), Karst. Sufton Court, Belmoni, Brockhampton, Haywood Forest, Dinmore

Geoglossum hirsutum, Pers. Dinedor, Lawns nr. Hereford, Holme Lacy, Whitfield, Dinmore

- glutinosum, Pers. Whitcliffe - viscosum, Pers. Belmont

— glabrum, Pers. Whitcliffe, Holme Lacy

- difforme, Fr. Lawns nr. Hereford, Holme Lacy, Whitfield

Spathularia clavata (Schaeff.), Pers. Dinedor, Vennwood, Woods nr. Ludlow

Mitrula serpentina (O. Muell.), Mass. (= Geoglossum viride, Pers.). Dinmore, Moccas Woods, Whitfield, Woods nr. Ludlow

 olivacea, Sacc. (=Geoglossum olivaceum, Pers.). Holme Lacy, Moccas Park, Pastures nr. Ludlow

 cucullata (Batsch), Fr. Brockhampton

Leotia lubrica (Scop.), Pers. Dinedor Camp, Woods nr. Here ford, Dinmore, Eastnor

- acicularis, Pers. Nr. Colwall, Brockhampton. On dead stumps

# DISCOMYCETAE (cont.)

#### PEZIZACEAE

Acetabula vulgaris, Fckl. Whitfield, Eastnor

Geopyxis coccinea (Scop.), Mass. Cradley

- cupularis (Linn.), Sacc. Nr. Hereford, Vennwood, Whitfield

- carbonaria (A. & S.), Sacc. Whiteliffe. On burnt ground

Peziza vesiculosa, Bull. Eastnor - repanda, Wahl. Nr. Hereford, Dinmore

- ampliata, Pers. Whitfield. Stoke Edith. On wood
— tectoria, Cke. Gounty Asylum,

Hereford. On walls

- ochracea, Boud. Ewyas Harold. Under a slab of wood in Mr. Simkin's garden

- badia, Pers. Dinmore, Foxley, Sufton Court, Brockhampton, Colwall

- saniosa, Schrad. Doward Rocks, Dinmore

- succosa, Berk. Vennwood. Dinmore, Downton, Whitfield, Doward Rocks, Sufton Court

Otidea leporina (Batsch), Fckl. Haywood Forest, Sufton Court, Brockhampton, Eastnor

- micropa (Pers.). Sacc. var. flavida, Phil. Moccas Park.

- cochleata (Bull), Fckl. Foxley, Brockhampton, Eastnor

- grandis (Pers.), Mass. Haywood Forest

— onotica (Pers.), Fckl. Haywood Forest, Sufton Court, Dinmore, Downton

- aurantia (Pers.), Mass. Dinmore, Downton, Whitfield, Moccas, Haywood Forest, Holly Bush Pass, Eastnor, Brockhampton, Stoke Edith

Barlaea constellatio (B. & Br.) Doward Rocks, nr. Sacc. Hereford

- Crouani (Cke.), Mass. Foxley Humaria humosa (Fr.), Sacc. Foxley, nr. Hereford

- rutilans (Fr.), Sacc. Nr. Colwall

- pilifera (Cke.), Sacc. Whitfield - carbonigena (Berk.), Sacc. Whitfield, Eastnor. On burnt ground

- omphalodes (Bull.), Mass. Dinmore, Sunny Gutter, nr. Ledbury, Brockhampton. On burnt ground

- ollaris (Fr.), Sacc. Sufton Court — granulata (Bull.), Sacc.

Holme Lacy, Stoke Edith, Eastnor, Brockhampton

# DISCOMYCETAE (cont.)

PEZIZACEAE (cont.)

Humaria hepatica (Batsch), Sacc. Doward Rocks, Dinmore

- subhirsuta (Schum.), Mass. Nr. Hereford, Whitfield

— domestica Mass. (Sow.), Hereford. On the walls of the County Asylum

- viridaria (B. & Br.), Mass. Hereford. On the walls of the County Asylum

Sepultaria lanuginosa (Bull), Cke. Ware

Lachnea stercorea (Pers.), Gillet. Common on cow and horse dung

- crucipila (Cke. & Phil.), Phil. Haywood Forest, Downton

– scutellata (Linn.), Gillet. Downton, nr. Colwall, Brockhampton. On wood

- hemispherica (Wigg.), Gillet. Vennwood, Dinmore, Whitfield, Stoke Edith, Sufton Court

- Woolhopeia (Cke. & Phil.), Phil. Downton. On burnt ground

- gregaria (Rehm.), Phil. Dinmore, Lyonshall

- livida (Schum.), Phil. Whitfield

Neottiella polytrichi (Schum.), Mass. Whitcliffe

Sphaerospora trechispora (B.&Br.), Whiteliffe

- Phillipsii, Mass. Nr. Hereford, Dinmore.

Dasyscypha virginea (Batsch), Fckl. Common. On dead twigs.

- nivea (Fr.), Sacc. Common. On dead wood, &c.

 bicolor (Bull), Fckl. Haywood Forest, Eastnor, Brockhampton. On oak twigs

- aranea (de Not), Mass. Holme Lacy, Moccas. Inside Spanish chestnut husks

 aspidiicola (B. & Br.), Sacc. Sunny Gutter. On male fern
— hyalina (Pers.), Mass. Bel-

mont. On dead sticks

- punctoidea (Karst), Mass. Dinmore. On Epilobium stems

-- calycina (Schum.), (= Peziza Willkommii Hartig). Haywood Forest, Dinmore, Croft Wood. On larch

- cerina (Pers.), Fckl. Dinmore. On wood

Plectania melastoma (Sow.), Fckl. Whitfield. On sticks

Tapesia fusca (Pers.), Fckl. Hereford var. rosea (Pers.), Mass. Whitfield

- aurelia (Pers.), Phil. Whiteliffe, Whitfield. Amongst dead leaves

## DISCOMYCETAE (cont.) PEZIZACEAE (cont.)

Tapesia caesia (Pers.), Fckl. Holme Lacy, Whitfield. On oak chips Chlorosplenium aeruginosum (Fl. Dan), de Not. Whitfield, Eastnor, Brockhampton. On fallen oak branches

Sclerotinia tuberosa (Bull), Fckl. Stoke Edith. On rhizomes of Anemone nemorosa

- candolleana (Lév.), Whitfield. On the ground growing from sclerotia

Ciboria ochroleuca (Bolt), Mass. Dinmore, Eastnor, Brockhampton, Downton. On dead twigs

- echinophila (Bull), Sacc. Eastnor, Holme Lacy, Downton, Whitfield. On involucres of sweet chestnut

Cyathicula coronata (Bull), de Not. Downton, Shobdon. On nettle stems

- petiolorum (Rob.), Moccas. On petioles of leaves Helotium claroflavum (Grev.), Berk. Downton, Brockhampton. On dead wood

- citrinum (Fr.). Downton, Eastnor. On chips, branches, &c.

- virgultorum (Vahl.), Karst. Vennwood, Stoke Edith, Eastnor, Brockhampton. dead twigs and acorns

var. fructigenum (Bull), Rehm. Holme Lacy, Dinmore. On beech mast

- cyathoideum (Bull), Karst. Common. On herb stems

- strobilinum (Fr.), Downton. On fir cones

- albidum (Rob.), Pat. var. Aesculi, Phil. Shobdon Court. On petioles of horse chestnut

Mollisia cinerea (Batsch), Karst. Common. On dead wood

- chrysostigma (Fr.). Shobdon. On stems of Pteris

- atrata (Pers.), Karst. Hereford

#### MUCORACEAE

Pilobolus crystallinus, Tode. Eastnor. On cow dung

Pilaira anomala, Schröt. Nr. Colwall. On horse dung

Mucor mucedo, Lin. Hereford, Brockhampton. On putrid rubbish Spinellus fusiger, Van Tiegh.

Eastnor, Brockhampton. On decaying Agarics

aspergillus, Sporodinia Schröt. Eastnor, Stoke Edith. On decaying Agarics

# DISCOMYCETAE (cont.)

PEZIZACEAE (cont.)

Mollisia filicum, Phil. Shobdon. On dead stems of Lastraea Filix mas

Pseudopeziza trifolii (Bernh.), Fckl. On living clover leaves

- benesueda (Tul.), Mass. Sunny Gutter nr. Ludlow. alder branches

#### ASCOBOLACEAE

Ryparobius parvisporus (Renny), Phil. Nr. Hereford. On rabbit dung

- Crouani (Renny), Phil. Nr. Hereford. On rabbit dung

— sexdecemsporus (Crouan). Sacc. Herefordshire

- argenteus (B. & Br.). Hereford. On rabbit dung

- subhirtus (Renny), Phil. Nr. Hereford. On rabbit dung

- woolhopensis (Renny), (B. & Br.). Nr. Hereford. On bird dung mixed with filaments of Mucor

 leveilleanus (Renny), Phil. Nr. Hereford. On rabbit dung Ascophanus carneus (Pers.), Boud.

Sufton Court. On rotten rag Ascobolus furfuraceus (Pers.) Eastnor Park, Brockhampton. On cow dung

- viridis Curr. Dinmore, Whitfield. On the ground

Cubonia Boudieri (Renny), Sacc. Nr. Hereford. On rabbit dung

#### BULGARIACEAE

Ombrophila clava (A. & S.), Cke. Eastnor, Holme Lacy. On dead wood

Orbilia vinosa (A. & S.), Karst. Downton. On dead wood — leucostigma, Fr. Holme Lacy.

On dead wood

Calloria fusarioides (Berk.), Fr. Nr. Colwall. On dead nettle stems

Coryne sarcoides (Jacq.), Tul. Rotherwas, Moccas, Dinmore, Eastnor, Brockhampton. On stumps, &c.

#### **PHYCOMYCETAE**

#### PERONOSPORACEAE

Cystopus candidus, Lév. Common. On Capsella Bursa-pasto-

— tragopogonis, Schröt. Nr Hereford. On Tragopogon Phytophthora infestans, De Bary.

Nr. Colwall. On potato pygmaea, Plasmopara Schröt.

Whitfield Peronospora parasitica, De Bary.

Nr. Colwall. On nasturtium

# DISCOMYCETAE (cont.)

BULGARIACEAE (cont.)

ria polymorpha (Oeder.), Wetts. Whitfield, Haywood Forest, Dinmore, Eastnor, Bulgaria polymorpha Brockhampton. On dead trunks

#### DERMATEACEAE

Cenangium furfuraceum (Roth.), de Not. Eastnor. On alder - dryinum (Cke.), Mass. Nr. Hereford. On oak bark

Tympanis ligustri, Tul. Hereford, Whitfield. On privet

Scleroderris rubi (Lib.), Mass. Belmont. On rose stems

#### PATELLARIACEAE

Patellaria maura, Phil & Plow. Dinmore. On dead wood Karschia lignyota (Fr.), Sacc. Holme Lacy. On dead wood

#### STICTIDEACEAE

Stictis atro-alba (Phil. & Plow.), Sacc. Dinmore. On clematis stems

Propolis faginea, Karst. Dinmore, Eastnor, Brockhampton. On rotten wood

#### PHACIDIACEAE

Coccomyces coronatus (Schum.), de Not. Haywood Forest, Dinmore. On dead leaves

- striatus (Phil. & Plow.), Mass. Dinmore. On bramble stems

- dentatus (Schmidt), Sacc. On oak leaves

Phacidium multivalve, Kze. & Schmidt. Eastnor. leaves of holly

Trochila laurocerasi, Fr. Foxley. On cherry-laurel leaves

- ilicis (Fr.), Crouan. Stoke Edith, Eastnor. On dead holly leaves Schizoxylon Berkeleyanum (Dur.

& Lév.), Fckl. Dinmore. On Pteris

#### EXOASCACEAE

Exoascus pruni (B. & Br.), Fckl. Stoke Edith, nr. Colwall

#### Saprolegniaceae

Pythium De-Baryanum, Hesse. Hereford. On cress seedlings

#### ENTOMOPHTHORACEAE

Empusa muscae, Cohn. Hereford, Stoke Edith. On house-flies,

#### CHYTRIDIACEAE

Synchytrium taraxaci, De Bary. Whitfield. On dandelion

#### DEUTEROMYCETAE

#### Sphaeropsidaceae

- Phyllosticta, vulgaris, Desm.

  Haywood Forest. On honeysuckle leaves
- hedericola, D. R. & M. On ivy leaves
- ulmi, West. Whitfield. On elm leaves
- tormentillae, Sacc. Dinmore. On Potentilla Tormentilla
- filipendula
  - var. ulmariae, Sacc. Dinmore. On Spiraea
- scrophulariae, West. Dinmore. On Scrophularia
- lutetiana, Sacc. Dinmore. On Circaea leaves
- primulaecola, Desm. Dinmore.

  On primrose leaves
- Phoma mali, Sch. & Sacc. Lugwardine. On apple twigs — vitis, Bon. Stoke Edith. On
- vitis, Bon. Stoke Edith. On vine twigs
- scobinum, Cke. Dinmore.
  On ash
- sticticum, B. & Br. On box leaves and twigs
- velatum, Sacc. On lime
- taxi (Berk.), Sacc. Moccas.
  On yew leaves
- visci, Sacc. On mistletoe
- vulgaris, Sacc. On clematis
- complanatum, Pers. Dinmore On Umbelliferae

Mucedinaceae

Microstroma album (Derm.), Sacc.

Breinton, Rotherwas.

Oospora lactis (Fr.), Sacc. Here-

- porriginis (M. & B.), Sacc.

- crustacea (Bull), Sacc. Here-

— fulva (Kunze), Sacc. and Vogl.

Fusideum griseum, Link. Com-

Monilia aurea, Gmel. Hereford.

- fructigena, Pers. Common.

Oidium Tuckeri, Berk. Colwall,

Ledbury. On grapes

On rotten wood

On rotten apples

— candicans, Sacc. Belmont Cylindrium flavo-virens, B

On dead leaves

Haywood Forest. On rotten

mon everywhere. On dead

Dinmore, Haywood Forest.

ford. On cheese

ford. On milk and cheese

On

'ring-

oak leaves

Hereford.

worm'

wood

oak leaves

#### SPHAEROPSIDACEAE (cont.)

- Phoma acutum, Fr. Hoime Lacy, Rotherwas, Moccas. On nettles
- onagracearum, Cke. Dinmore. On Epilobium
- nebulosum, Pers. Dinmore.
  On nettles
- samarorum, Desm. Belmont, Breinton, Downton. On ash keys
- tussilaginis, Cke. & Mass. Canal bank, Hereford. On tussilago leaves
- iridis, Čke. Breinton. On iris
- Coniothyrium hederae, Desm. Dinmore. On ivy
- Diplodia rubi, Fr. Dinmore. On bramble
- salicina, Lév. Dinmore. On willow
- herbarum, Lév. On herb stems
- Cytispora stellulata, Sacc. Downton. On elm
- leucosperma, Fr. On branches
   Hendersonia rubi, West. Credenhill, Dinmore. On bramble
- Asteroma rosae, Lib. Holme Lacy.
  On rose leaves
- Septoria pyricola, Desm. Shobdon. On pear leaves

#### SPHAEROPSIDACEAE (cont.)

- Septoria hederae, Desm. On ivy leaves
- castanicola, Desm. *Dinmore*. On chestnut leaves
- epilobii, West. On *Epilobium* leaves
- hyperici, Desm. Ross, Dinmore. On Hypericum
- Vermicularia trichella (Fr.), Grev. Downton. On ivy leaves
- Ceuthospora lauri, Grev. Nr. Hereford. On cherry-laurel leaves

#### LEPTOSTROMACEAE

- Leptothyrium quercinum, Lasch. Common. On oak leaves
- litigiosum, Desm. Cowarne Court, Dinmore, Pontrilas. On Pteris

#### MELANCONIACEAE

- Gloeosporium ficariae, Berk. On Ranunculus Ficaria
- ribis, Lib. Stoke Edith. On red currant leaves
- nervisequium, Fckl. *Holme Lacy*. On plane leaves
- Melanconium sphaeroideum, Link. *Dinmore*. On alder
- Coryneum Kunzei, Cda. Ross. On oak twigs
- Pestalozzia guepini, Desm. Whitfield. On Camellia leaves

#### **HYPHOMYCETAE**

#### Mucedinaceae (cont.)

- Oidium farinosum, Cke. Breinton, Holme Lacy. On living apple leaves
- balsamii, Mont. Breinton, Dinmore. On mullein leaves
- erysiphoides, Fr. Nr. Hereford, Dinmore, &c. On living leaves of various plants
- Cephalosporium acremonium, Cda. Belmont
- Penicillium glaucum, Link. Common everywhere. On decaying fruit, &c.
- hyphomycetis, Sacc. On old Stereum
- Rhinotrichum repens, Preuss.

  Downton. On rotten wood
  Sporotrichum sulphureum, Grev.
- Hereford. On corks
   geochroum, Desm. Moccas.
  On rotten wood
- Botrytis argillacea, Cke. On wood

   Tilletii, Desm. *Dinedor*. On
  dead leaves, &c.

#### MUCEDINACEAE (cont.)

- Botrytis vulgaris, Fr. Haywood Forest, Dinmore, Downton. On dead herbs
- cinerea, Pers. Dinmore, Belmont. On Umbelliferae
- Ovularia lactea (Desm.), Mass. Nr. *Hereford*. On violet leaves
- lamii (Fckl.), Sacc. Dinmore.
  On dead nettle
- obliqua, Oud. Breinton, Downton. On dock leaves Verticillium terrestre, Sacc. Dine-
- Verticillium terrestre, Sacc. Dinedor, Haywood Forest, Credenhill. On the ground
- agaricinum, Cda. Dinmore.
  On agarics
- buxi (Link.), Auers. and Fleisch. Common. On box leaves
- lateritium, Berk. Haywood
   Forest, Whitfield. On rotting plants
- Acrostalagmus cinnabarinus, Cda.

  Downton, Stoke Edith, Brockhampton. On rotting plants

#### MUCEDINACEAE (cont.)

Diplocladium penicilloides. Sacc. On Polyporus

- minus, Bon (Rennyi Sacc). Nr. Hereford. On trunks

- Trichothecium roseum, Link. Holme Lacy, Dinmore, Downton, Moccas. On bark, stems, &c.

Didymaria Ungeri, Cda. Dinmore. On Ranunculus repens Dactylium dendroides (Bull.), Fr. Haywood Forest. On agarics

Dactylella implexa (B. & Br.), Sacc. Nr. Hereford. On willow trunks

Ramularia ulmariae, Cke. On Spiraea leaves

- calcea, Ces. Dinmore. On ground ivy leaves

Helicomyces tubulosus, R'ess. Nr. Hereford. On rotten

#### DEMATIACEAE

Torula monilioides, Cda. Eastnor, Brockhampton. stumps

- pulveracea, Cda. Holme Lacy. On branches

- antennata, Pers. Dinmore. On rotten wood

- herbarum, Link. Stoke Edith, Dinmore, Downton. On stems

- graminis, Desm. Dinmore. On grass leaves

Periconia pycnospora, Fres. Bel-

Camptoum curvatum, Link. Downton. On Carices

Arthrinium sporophlaeum, Kze. Haywood Forest. On grasses Zygodesmus fuscus, Cda. Downton. On wood

Bispora monilioides, Cda. Haywood Forest, Dinmore, Moccas. On wood

Fusicladium dendriticum, Fckl. Holme Lacy. On pear and apple leaves

#### DEMATIACEAE (cont.)

Fusicladium pyrinum, Lib. Hereford, Holme Lacy. On pears.

- depressum, B. & Br. Dinmore. On Angelica leaves

Polythrincium trifolii, Kze. Dinedor, Rotherwas, nr. Bromyard. On clover

Cladosporium epiphyllum, Mart. Credenhill. On oak leaves — fulvum, Cke. Hereford, East-

nor. On tomato leaves

- herbarum, Link. Common everywhere. On vegetable substances

Clasterosporium vermiculatum, Cke. Nr. Hereford. On oakwood

Helminthosporium minimum. Cke. Nr. Hereford. On decorticated branches

- Rousselianum, Mont. Belmont. On dead stick

— macrocarpum, Grev. Haywood Forest. On branches

— apiculatum, Cda. Dinmore. On wood

- Smithii, B. & Br. Dinmore. Hampton Court. On holly twigs

- macilentum, Cke. Nr. Hereford. On rotten wood

Brachysporium stemphy loides (Cd1.), Sacc. Dinmore. On dead wood

— apicale (B. & Br.), Sacc. Credenhill. On branches

- obovatum (Berk.), Sacc. Breinton. On rotten wood

Cercospora mercurialis, Pass. Dinmore. On Mercurialis perennis Dendryphium curtum, B. & Br.

Nr. Hereford. On herbstems Coniothecium effusum,

Dinmore. On dead wood — amentacearum, Cda. more. On willow twigs

Macrosporium commune, Rabh. Holme Lacy, Rotherwas. On herb stems

#### DEMATIACEAE (cont.)

Macrosporium tomato, Cke. Hereford. On tomato fruits

- ramulosum, Secc. On Umbelliferae

Fumago vagans, Pers. Dinmore. Common. On various plants

Helicosporium Reanyi,

Hereford. On wood Berk.

#### STILBACEAE

Stilbum tomentosum, Schrad. Haywood Forest. On Trichia - fimetarium, B. & Br. Cowarne

Court, Downton. On rabbit dung

Stysanus fimetarius, Karst. Bel-

mont. On decaying vegetation

#### TUBERCULARIACEAE

confluens, Pers. Tubercularia Dinmore. On Salix

Tuberculina persicina (Ditm.), Sacc. Dinmore. On old Aecidium

Illosporium Curreyi (Berk.), Sacc. Nr. Hereford. On branches Hymenula platani, Lév. Holme

Lacy. On leaves Platanus

Aegerita candida, Pers. Downton. On bark

Volutella setosa (Grev.), Berk. Rotherwas, Credenhill. On herb stems

- buxi (Cda.), Berk. On box leaves

Fusarium lateritium, Nees. Dinmore. On willow

- roseum, Link. Dozunton. On mallow stems

- heterosporum, Nees. Nr. Hereford. On Glyceria fluitans Epicoccum neglectum, Desm.

Credenhill. On grass leaves Myrothecium inundatum, Tode. Downton. On rotting Agarics

#### MYXOMYCETAE

# a. EXOSPOREAE

CERATIOMYXACEAE

Ceratiomyxa mucida, Schröt. HolmeLacy, Dinmore, Whitfield. On bark

#### β. ENDOSPOREAE

Physaraceae

Physarum nutans, Pers. Haywood Forest, Dinmore, Eastnor, Brockhampton

y. leucophaeum, Fr. Haywood Forest, Moicas

#### ENDOSPOREAE (cont.) PHYSARACEAE (cont.)

Physarum bivalve, Pers. Hereford Foray British Mycological Soci ty, 1902

Fuligo septica, Gmcl. Stoke Edith, Holme Lacy, Credenhill

Crate:ium pedunculatum, Trent. Dinmore, Downton, Whitfield

Leocarpus vernicosus, Link. Foxley, Dinmore, Holme Lacy, Eastnor, West Malvern Woods

# ENDOSPOREAE (cont.)

PHYSARACEAE (cont.)

Chondrioderma spumarioides, Rost. Hereford Foray Mycological Society, 1902

#### DIDYMIACEAE

Didymium difforme, Duby. Whitfield, Dinmore, Holme Lacy, Eastnor

- effusum, Link. Downton Spuma ia alba, DC. Rotherwas, Moccas, Whitfield

ENDOSPOREAE (cont.)

Stemonitaceae

S:emonitis fusca, Roth. Haywood Forest, Dinmore, Whitfield Comatricha obtusata, Preuss.

Dinmore, Eastnor

Echinostelium minutum, De Bary. Hereford Foray British Mycological Society, 1902<sup>20</sup>

HETERODERMACEAE

Lirdbladia tubulina, Fr. Lyonshall

#### TUBULINACEAE

Tubulina fragiformis, Pers.

Brockhampton

20 This was the first record for Britain. See Trans. Brit. Myc. Soc. ii, 54. ENDOSPOREAE (cont.)

RETICULARIACEAE

Dictydiaethalium plumbeum,

Rost. Belmont
Reticularia Lycoperdon, Bull.
Dinmore, Holme Lacy, Eastnor, Colwall, Whitfield

#### TRICHIACEAE

Trichia persimilis, Karst. Hereford, Eastnor, Brockhampton

— varia, Pers. Downton, Dinmore

- fallax, Pers. Holme Lacy, Stoke Edith

— botrytis, Pers. Whitfield Hemitrichia rubiformis, Lister. The Ridgeway ENDOSPOREAE (cont.)

TRICHIACEAE (cont.)

Hemitrichia clavata, Rost. Dinedor

#### ARCYRIACEAE

Arcyria punicea, Pers. Credenhill, Dinmore, Eastnor, Brockbampton, Whitfield, Stoke Edith

— flava, Pers. Downton, Col-

Perichaena populina, Fr. Dinmore

#### LYCOGALACEAE

Lycogala miniatum, Peis. Credenbill, Downton, Eastnor, Whitfield, Brockhampton

# ZOOLOGY

# **MOLLUSCS**

Although the county of Hereford is fairly prolific in Mollusca, being hilly and well wooded, it is not a very happy hunting ground, the soil not

favouring molluscan life.

Nine-tenths of the area consists of Old Red Sandstone, with only here and there some impure limestone nodules. This is largely masked in the valleys by drift beds of gravel, clay, and sand. There are some limestone bands exposed in the small patch of Silurian beds in the north, as well as at Woolhope and to the east of Ledbury, while in the south-east corner the Wye cuts its way through cliffs of Carboniferous Limestone. These limestone areas are more prolific of snails. The rapid current and frequent floods of the Wye and smaller streams cause them to yield little, though the more sluggish Lugg, with its rich water meadows, shelters a good many species. Small ponds are numerous, but frequently fouled by cattle or cleaned out by ducks.

Of the 146 or so species recorded for these islands, Herefordshire may be credited with about 94, including two, *Vertigo substriata* and *V. pusilla*, from a Holocene deposit at Ledbury, and *Planorbis corneus* introduced into a

pond at Broomy Hill.

Several records have had to be rejected on account of error in locality, a collection in the Hereford Museum having been labelled 'Hereford' that had been brought together from many parts of England. On the other hand,

several more species should be forthcoming with further research.

The most interesting occurrence of those chronicled is, perhaps, that of Helicella cantiana, the Kentish snail, at Dinmore (although this is only on the authority of an isolated record), especially in view of the fact that attempts made to establish colonies of it near Hereford failed. The species belongs to the southern and eastern parts of England, and is not plentiful in the Severn valley.

With the exception of Jaminia [= Pupa] anglica, none of the more

typically western forms are present in the district.

The published papers dealing with the molluscan fauna of Herefordshire are indeed scanty; in fact there is only one memoir of any note, and that is the excellent and most thorough monograph by A. E. Boycott and E. W. W. Bowell, on which, supplemented by the Records of the Conchological Society, this account is based.

The nomenclature adopted in the following list is that of the Conchological Society issued in 1904, and differs from that employed in the earlier county histories of this series. Where the names here used differ from those previously given, the latter are added in square brackets in order to facilitate comparison.

# A. GASTROPODA

#### I. PULMONATA

#### a. STYLOMMATOPHORA

I. PULMONATA (continued)

a. STYLOMMATOPHORA (continued)

Testacella haliotidea, Drap. Burghill; Broomy Hill; Hereford

Limax maximus, Linn. Fairly common

- flavus, Linn. Hereford

- arborum, Bouch.-Chant. Doward Hill; Backbury Hill; Ross

Agriolimax agrestis (Linn.). Too common

lævis (Müll.). Hereford

Milax [ = Amalia] sowerbyi (Fér.). Hereford

- gagates (Drap.). Bishop's Wood

Vitrina pellucida (Müll.). Fairly common

Vitrea crystallina (Mull.). Found in many places - lucida (Drap.). Breinton; Clehonger. Nowhere

— cellaria (Müll.). Fairly common

- rogersi, B. B. Woodw. [=glabra, auct.]. distributed

Ross; - alliaria (Müll.). Not very common. Llanwarne; Staunton on Arrow; Bishop's Wood; Ledbury; Hereford; Barrington; Aymestrey; Michaelchurch Escley

— nitidula (Drap.). Very common

- pura (Alder). Fairly widely distributed

- radiatula (Alder). Sparingly. Whitchurch; Longworth

Euconulus [=Vitrea] fulva (Müll.). Widely distributed, but not common

Arion ater (Linn.). Quite common

- subfuscus (Drap.). Hereford

- intermedius, Norm. Hereford; Ross

- hortensis, Fér. Common

- fasciatus, Nils. [=circumscriptus, Johnst.]. Bishop's Wood; Ross

Punctum pygmæum (Drap.). Rare at Burghill; Rotherwas Wood

Sphyradium edentulum (Drap.). Backbury sparingly Pyramidula rupestris (Drap.). Very abundant at Great Doward Hill; one specimen at Staunton on

- rotundata (Müll.). Very common and generally distributed

 Helicella virgata (Da Costa). Near Ross
 — itala (Linn.). Common between Burghill and Moreton; Stretton Sugwas; Westside Hill; Schucknell Hill

- caperata (Mont.). Fairly common and widely distributed

- cantiana (Mont.). Dinmore. Attempts to colonize this species near Hereford failed

Hygromia fusca (Mont.). Great Doward Hill; Stoke Woods; Whitney-on-Wye

- hispida (Linn.). Widely distributed and common — rufescens (Penn.). Broomy Hill; Ross; Great Doward Hill; Rotherwas: Wareham; Staunton on Wye; Badnage; Dormington Quar-

ries Acanthinula aculeata (Müll.). Rather widely dis-

tributed Vallonia pukhella (Müll.). Dinedor; Doward; Backbury; Dormington; Credenhill. Most likely some of these will prove to be V. excentrica, a species only recently recognized in this country - costata (Müll.). Backbury

Helicigona lapicida (Linn.). Burghill (one specimen) ; Aymestrey; Woolhope; Doward; Dormington Quarries: Backbury

- arbustorum (Linn.). Not uncommon Helix aspersa, Mull. Occurs in most places

— nemoralis, Linn. \ Widely distributed and common - hortensis, Müll.

Ena [=Buliminus] obscura (Mull.). Sparingly in a good many localities

Cochlicopa lubrica (Mull.). Common, and widely distributed

Cæcilioides [= Cæcilianella] acicula (Müll.). Backbury Hill; Ross; Bishop's Wood; rejectamenta of the Wye at Hereford

Jaminia [= Pupa] secale (Drap.). Abundant in quarries on Great Doward Hill

- anglica (Fér.). Whitney on Wye.

- cylindracea (Da Costa). Occurs in several localities - muscorum (Linn.). Occurs rarely on the Doward Vertigo antivertigo (Drap.). A few in quarries in Stoke Woods

- substriata (Jeff.). In a subfossil deposit at Ledbury - pygmæa (Drap.). A few on Backbury Hill; Dormington Quarries; near Huntingdon

- pusilla, Müll. In a subfossil deposit at Ledbury Balea perversa (Linn.). Tillington Common; Rotherwas; Backbury Hill; Bishop's Wood

Clausilia laminata (Mont.). Doward; Dormington Quarries; Adams Rocks, Backbury Hill; Bishop's Wood

- bidentata (Ström.). Widely distributed, but only common in the limestone districts

Succinea putris (Linn.). \ Fairly common and widely distributed - elegans, Risso.

#### b. Basommatophora

Carychium minimum, Müll. Common Ancylus fluviatilis, Müll. In many streams Acroloxus = Ancylus | lacustris (Linn.).tributed

Limnæa pereger (Müll.). Common everywhere

— palustris (Müll.). Widely distributed
— truncatula (Müll.). Common in many places
— stagnalis (Linn.). Not very common

Planorbis corneus (Linn.). Introduced into a pond at Broomy Hill

- albus, Müll. Not very common

Burton Court, near Eardisland; - glaber, Jeff. Rotherwas Park

- crista [= nautileus] (Linn.). Grafton; Garnons Park; Whitchurch

- carinatus, Müll. Canal near Hereford

- umbilicatus, Müll. [= marginatus, Drap.]. Not common

- vortex (Linn.). - spirorbis (Linn.).

Not very common - contortus (Linn.).

Segmentina nitida (Müll.) [=Planorbis lineatus, Walker]. Of fairly frequent occurrence, but nowhere

Physa fontinalis (Linn.). Fairly common Aplecta [= Physa] hypnorum (Linn.). Broomy Hill; Hereford; Little Tarrington

## MOLLUSCS

## B. PELECYPODA

#### II. PROSOBRANCHIA

- margaritifer (Linn.).)

# Bithynia tentaculata (Linn.). Fairly common Vivipara vivipara (Linn.). Formerly abundant in canal near Hereford; Canon Frome; Munsley Valvata piscinalis (Müll.). Not uncommon — cristata, Müll. Garnons Park; Tupsley Pomatias elegans (Müll.). Doward; Dinmore; Woolhope district; Mordiford Neritina fluviatilis (Linn.). Wye, below Symond's Yat station; Lugg at Hampton Bishop Dreissensia polymorpha (Pall.). Formerly abundant in the canal near Hereford; canal at Canon Frome Unio pictorum (Linn.). — tumidus, Retz. Anodonta cyg Neritina onear don, Sphærium riv Yat a Mord — corneum ( — corneum ( — lacustre mer; Wye Pisidium amn — pusillum ( — casertanus

elsewhere

#### II. PROSOBRANCHIA (continued)

Anodonta cygnæa (Linn.). Abundant in the canal near Hereford and Belmont; near Huntingdon, &c.

Sphærium rivicola (Leach). River Wye at Symond's Yat and near Rotherwas; River Lugg at Mordiford; River Frome at Longworth

- corneum (Linn.). Occurs commonly

— lacustre (Müll.). Near Shelwick; near Holmer; Tupsley; Grafton; Staunton on

Pisidium amnicum (Müll.).
— pusillum (Gmel.).

Not uncommon

- casertanum (Poli) [= fontinale, auct.]. Local

<sup>\* \*</sup> The correct identification of the two last species is questionable.

# **INSECTS**

The following account of the insects of the county is a very imperfect one with regard to most of the orders: the list of the Lepidoptera is by far the best, and that of the Diptera is also a valuable one: these are due to the work of Dr. Wood of Tarrington, Hereford. Very little has been done at the Coleoptera, and, with a few striking exceptions, the list is chiefly remarkable for the absence of all but common species: nothing practically is known about any of the other orders. The county presents great variation in configuration and elevation, and it is probably as rich in insects as any other inland county of Great Britain, the occurrence of certain Scotch or northern forms being particularly interesting: it is to be hoped that the western side of the county may be thoroughly worked, as it is certain that many good species will be found on the borders of Radnorshire and Brecknockshire.

#### ORTHOPTERA AND NEUROPTERA

After close search through entomological literature for records of Orthoptera and Odonata, and a somewhat less extended one for those of the rest of the Neuroptera, I have succeeded in finding but six insects belonging to those orders for the whole of Herefordshire, nor does it seem that a still closer search would reveal many more. The insects are:—The Orthopteron, Thamnotrizon cinereus, in Mr. Eland Shaw's collection, taken by Mr. H. H. Winston, at Hereford; the Neuroptera, Chloroperla grammatica, at Tarrington (Col. Yerbury); Nemoura variegata, at Tarrington and Much Marcle (Col. Yerbury); Anabelia coenosa, Leominster probably (Newman's collection); Stenophylax striatus, Leominster (McLachlan); Mormonia basalis, near Leominster (Newman). Of the Neuroptera, the first two are Perlids and the remainder Caddis-flies. Should this meagre list induce any entomologist of the county to turn his attention to these very much neglected orders, he should record all species, however common; for, judging by what we have before us, no one would be justified in asserting that a dragonfly or a mayfly forms part of the fauna of the county, or that the common earwig even, or the kitchen cockroach, may be found within its borders.

#### COLEOPTERA

#### Beetles

The Herefordshire list of Coleoptera is at present in a very unsatisfactory state; in fact I hardly thought that I could obtain material for any list at all, and it will be noticed that a very large number of the species as yet recorded are of wide or universal distribution; at the same time some very interesting species have occurred. The most remarkable is *Pyrochroa pectinicornis*, a scarce Scotch species, hitherto only recorded as British from the highlands of Scotland. This was taken by that excellent observer Dr. Chapman, on the Herefordshire portion of the Black Mountain, which will probably, if worked, yield many other northern species. Among other beetles of interest the following may be mentioned:—Hydraena pulchella, Quedius vexans, Anisotoma cinnamomea, Rhizophagus dispar, Corticaria crenicollis, Pediacus dermestoides, Xyletinus ater, Gnorimus nobilis, and

# INSECTS

Tricbius fasciatus. The last-named insect is chiefly found in Scotland, but it has also occurred near Swansea. Several of the Scolytidae have been taken by Dr. Chapman, who has very carefully worked out the life-history of some of the species, and published the results in detail in the earlier volumes of the Entomologist's Monthly Magazine. Those who do not possess these volumes will find the chief parts of these descriptions quoted under their several genera in my work on The Coleoptera of the British Islands, vol. v.

In the following list I am chiefly indebted to three collectors: - Colonel Yerbury, who sent a number of beetles from Herefordshire (without any definite locality) to the Oxford Museum; the Rev. A. Thornley, who together with the Rev. C. H. Binstead captured a good many species at Eardisley; and Mr. J. R. le B. Tomlin, who has sent me a very useful list from West Malvern. Mr. Willoughby Ellis has also sent me several records from Pembridge, Eardisley, and Pudleston. I must also thank Mr. J. J. Walker for kindly making out a list of Colonel Yerbury's beetles, and

Dr. Chapman for a small list of Scolytidae.

As Mr. Tomlin collected just on the borders of Herefordshire and Worcestershire, it is possible that some of his records may strictly belong to the latter county, and it is more than probable that a large number of the scarce species which were taken by Mr. Blatch and Mr. Horner near Ludlow, on the borders of Shropshire, occur also in Herefordshire. It is almost impossible to draw an exact line. I have myself taken the rare Philonthus lucens on the very top of the Worcestershire Beacon of the Malvern Hills, and also the beautiful Corymbites aeneus in numbers on the Worcestershire side of the hills, and both these species most probably occur within the Herefordshire border also.

Nearly 600 beetles are enumerated below, or about one-sixth of the whole number of British species. It is very likely that this number will eventually be more than quadrupled, for the county is probably extremely rich in examples of the order.

#### **CARABIDAE**

#### CARABIDAE (continued)

#### HALIPLIDAE

Cychrus rostratus, L. Anchomenus angusticollis, F. (jun-Brychius elevatus, Panz. Carabus nemoralis, Müll. ceus, Scop) Haliplus confinis, Steph. Here-Notiophilus aquaticus, L. - dorsalis, Müll. ford - biguttatus, F. - ruficollis, Dej. — albipes, F. Leistus spinibarbis, F. - oblongus, F. — fulvibarbis, Dej. - marginatus, L. - ferrugineus, L. - viduus, Panz. Nebria brevicollis, F. - var. moestus, Duft. DYTISCIDAE Elaphrus riparius, L. - micans, Nic. - cupreus, Duft. - fuliginosus, Panz. Noterus clavicornis, De G. Loricera pilicornis, F. Bembidium rufescens, Guér. - sparsus, Marsh. Clivina fossor, L. - obtusum, Sturm. Laccophilus interruptus, Panz. - collaris, Herbst. - biguttatum, F. (minutus, Er.) Dyschirius globosus, Herbst. — aeneum, Germ. Hyphydrus ovatus, L. Badister bipustulatus, F. - guttula, F. Coelambus versicolor, Schall (reticu-Acupalpus meridianus, L. - mannerheimi, Sahlb. latus, F.) Bradycellus distinctus, Dej. - inaequalis, F. - quadrimaculatum, L. - verbasci, Duft. - quadriguttatum, F. - decoratus, Gyll. Harpalus ruficornis, F. - lampros, Herbst. Deronectes assimilis, Payk. - aeneus, F. - decorum, Panz. - depressus, F. – latus, L. -- nitidulum, Marsh. - 12 pustulatus, F. Stomis pumicatus, Panz. - tibiale, Duft. Hydroporus pictus, F. Pterostichus versicolor, Sturm. — atrocoeruleum, Steph. - septentrionalis, Gyll. Eardisley - madidus, F. — erythrocephalus, L. — femoratum, Sturm. niger, Schall. - littorale, Ol. -- planus, F. — vulgaris, L. - fluviatile, Dej. - nigrita, F. - strenuus, Panz. - flammulatum, Ol. - morio, Dej. (atriceps, Crotch) -- vernalis, Panz. - varium, Ol. (ustulatum, - palustris, L. - striola, F. Sturm). Agabus bipustulatus, L. Amara apricaria, Payk. - prasinum, Duft. Eardisley – guttatus, Payk. - spinipes, L. Platambus maculatus, L. - punctulatum, Drap. - tibialis, Payk. Hereford Tachypus flavipes, L. Ilybius fenestratus, F. - familiaris, Duft. Trechus minutus, F. - ater, De G. - trivialis, Gyll. Patrobus excavatus, Payk. - lunicollis, Schiödte. Demetrias atricapillus, L. - similata, Gyll. Dromius linearis, Ol.

-- agilis, F.

- quadrimaculatus, L.

- melanocephalus, Dej.

Metabletus foveola, Gyll.

GYRINIDAE

Calathus cisteloides, M.

- melanocephalus, L.

Pristonychus terricola, Herbst.

#### HYDROPHILIDAE

Hydrobius fuscipes, L. Philhydrus testaceus, F. Anacaena limbata, F. Laccobius sinuatus, Mots. - minutus, L. Limnebius truncatellus, Thunb. Helophorus aeneipennis, Thoms. - brevipalpis, Bedel Henicocerus exsculptus, Germ. Eardisley Hydraena testacea, Curt. - nigrita, Germ. - gracilis, Germ. - pulchella, Germ. Eardisley Cyclonotum orbiculare, F. Sphaeridium scarabaeoides, L. Cercyon obsoletus, Gyll. — haemorrhoidalis, F. - flavipes, F. - lateralis, Marsh - melanocephalus, L. - analis, Payk. Megasternum boletophagum, Marsh Cryptopleurum atomarium, Ol.

STAPHYLINIDAE Aleochara fuscipes, Grav. - morion, Grav. lanuginosa, Grav. Microglossa suturalis, Sahl. Oxypoda lividipennis, Mann. — longipes, Muls. — vittata, Märk - opaca, Grav. - alternans, Grav. Phloeopora reptans, Grav. Ocalea castanea, Er. Chilopora longitarsis, Er. Atemeles emarginatus, Payk. Astilbus canaliculatus, F. Homalota gregaria, Er. fungivora, Thoms.circellaris, Grav. — immersa, Heer. — cuspidata, Er. — analis, Grav. — depressa, Gyll. - fungicola, Thoms. - muscorum, Bris. - fungi, Grav. Tachyusa constricta, Er. Encephalus complicans, Westw. Ledbury Sipalia ruficollis, Er. Bolitochara bella, Märk. Oligota pusillima, Grav. punctulata, Heer. Myllaena brevicornis, Matth. Hypocyptus longicornis, Payk. Tachyporus obtusus, L.

- chrysomelinus, L.

Tachinus humeralis, Grav.

- humerosus, Er.

hypnorum, F.

- rufipes, De G.

— brunneus, F.

STAPHYLINIDAE (continued) Megacronus analis, Payk. Bolitobius trinotatus, Er. - exoletus, Er. Mycetoporus longulus, Mann. Heterothops nigra, Kr. (praevia, Brit. Cat.) Quedius vexans, Epp. West Malvern, in moles' nests (Tom-- tristis, Grav. - nigriceps, Kr. - maurorufus, Grav. Creophilus maxillosus, L. Leistotrophus nebulosus, F. - murinus, L. Staphylinus stercorarius, Ol. Ocypus brunnipes, F. - cupreus, Rossi - morio, Grav. Philonthus splendens, F. - laminatus, Creutz - umbratilis, Grav. - marginatus, F. Xantholinus linearis, Ol. Baptolinus alternans, Grav. Othius melanocephalus, Grav. Medon melanocephalus, F. Paederus littoralis, Grav. fuscipes, Curt. Dianous coerulescens, Gyll. Stenus biguttatus, L. - bipunctatus, Er. — guttula, Müll - bimaculatus, Gyll. - juno, F. - exiguus, Er. - speculator, Lac. - declaratus, Er. - binotatus, L. jun. - pubescens, Steph. - pallitarsis, Steph. - var. niveus, Fauv. - rusticus, Er. - tempestivus, Er. - ossium, Steph. - impressus, Germ. — pallipes, Grav. - flavipes, Steph. - cicindeloides, Grav. — similis, Herbst. Bledius fracticornis, Payk. Platystethus arenarius, Fourc. - nitens, Sahl.

Oxytelus rugosus, F. - laqueatus, Marsh – sculpturatus, Grav. Haploderus coelatus, Grav. Lesteva longelytrata, Goeze Olophrum piceum, Gyll. Lathrimaeum unicolor, Marsh Philorhinum humile, Er. Homalium fossulatum, Er. - pusillum, Grav. -- concinnum, Marsh

Anthobium ophthalmicum, Payk. - torquatum, Marsh

- vile, Er.

#### STAPHYLINIDAE (continued)

Proteinus brevicollis, Er. - brachypterus, F. Megarthrus depressus, Payk.

#### SILPHIDAE

Agathidium nigrinum, Sturm Leiodes humeralis, F. - orbicularis, Herbst. Pudleston Anisotoma cinnamomea, Panz. Hereford - dubia, Kug. Necrophorus humator, F. - mortuorum, F. - vespillo, L. Silpha thoracica, L. - rugosa, L. - sinuata, F. — atrata, L. Choleva angustata, F. - nigricans, Spence - tristis, Panz

#### SCYDMAENIDAE

Scydmaenus scutellaris, Müll.

- velox, Spence

#### **PSELAPHIDAE**

Tychus niger, Payk. Bryaxis fossulata, Reich Euplectus sanguineus, Aubé

#### TRICHOPTERYGIDAE

Ptenidium nitidum, Heer. - wankowiezi, Matth. — evanescens, Marsh

#### CORYLOPHIDAE

Orthoperus brunnipes, Gyll.

#### **PHALACRIDAE**

Phalacrus coruscus, Payk.

#### COCCINELLIDAE

Anisosticta 19-punctata, L. Adalia obliterata, L. – bipunctata, L. Coccinella 10-punctata, L. (variabilis, F.) - 7-punctata, L. — 14-guttata, L. - 18-guttata, L. — conglobata, L. (14-punctata, L.) - 22-punctata, L. Micraspis 16-punctata, L. Scymnus limbatus, Steph. Chilocorus similis, Ross. (renipustulatus, Sriba) Rhizobius litura, F.

Coccidula rufa, Herbst.

# INSECTS

#### **ENDOMYCHIDAE**

Mycetaea hirta, Marsh Endomychus coccineus, L.

#### COLYDIIDAE

Cerylon angustatum, Er.

#### HISTERIDAE

Hister cadaverinus, Hoff.

— succicola, Thoms
Saprinus nitidulus, Payk.

#### MICROPEPLIDAE

Micropeplus margaritae, Duv.

#### NITIDULIDAE

Epuraea aestiva, L.

- melina, Er.
- parvula, Sturm
- Meligethes rufipes, Gyll
- aeneus, F.
- ovatus, Sturm
- picipes, Sturm
- morosus, Er.

Pocadius ferrugineus, F. Ips quadripustulatus, L.

Rhizophagus dispar, Payk. Eardisley

- bipustulatus, F.

#### MONOTOMIDAE

Monotoma brevicollis, Aubé

- quadricollis, Aubé
- longicollis, Gyll.
- picipes, Payk.

#### LATHRIDIIDAE

Lathridius bergrothi, Reitt. This species, which has been comparatively recently found in Britain, seems to be spreading very widely in various localities. Mr. Tomlin has taken it in abundance in a cellar at West Malvern

Enicmus minutus, L. Corticaria fulva, Chev.

crenicollis, Mannh. This insect also has recently been introduced as British, and is now being found in various localities. West Malvern (Tomlin)

#### CUCUJIDAE

Pediacus dermestoides, F. Eardisley.

This rare species is a very interesting capture; it has hitherto been recorded from Chatham (Kent), Hainault Forest (Essex), New Forest (Hants), Sherwood Forest (Notts.), and one or two other localities.

#### CRYPTOPHAGIDAE

Antherophagus nigricornis, F. Cryptophagus tricolor, Sturm Atomaria linearis, Steph.

- umbrina, Er.
- fuscipes, Gyll.
- pusilla, Payk.
- mesomelas, Herbst.
- munda, Er.
- nigripennis, Payk. In a cellar at West Malvern. Very com-

mon (Tomlin) – ruficornis, Marsh

Ephistemus gyrinoides, Marsh

#### **SCAPHIDIIDAE**

Scaphidium quadrimaculatum, Ol.

#### MYCETOPHAGIDAE

Typhaea fumata, L. Byturus tomentosus, F.

#### DERMESTIDAE

Dermestes murinus, L.

— lardarius, L.

Attagenus pellio, L.

Megatoma undata, L. (Yerbury)

Anthrenus claviger, Er.

#### BYRRHIDAE

Byrrhus pilula, L.

— dorsalis, F. Malvern Hills
Cytilus varius, F.

#### PARNIDAE

Limnius tuberculatus, Müll.

Elmis aeneus, Müll.

— volkmari, Panz.

Potaminus substriatus, Müll. Eardisley

#### SCARABAEIDAE

Onthophagus ovatus, L.

Aphodius fossor, L. - pusillus, Herbst. - rufipes, L. Geotrupes stercorarius, L. Serica brunnea, L. Phyllopertha horticola, L. Trichius fasciatus, L. In the Entomologist's Monthly Magazine for 1891, p. 304, I recorded three or four specimens of this very interesting species as having been recently sent me by Mr. E. W. Bowell, who wrote as follows:-'These were bred for my friend Dr. Chapman, the food of the larva being the wood of Alnus glutinosa. I

#### SCARABAEIDAE (continued)

have seen the insect flying on several occasions.' The locality was near the banks of the River Monnow. Dr. Wood has recently sent me a single specimen taken by him in Cusop Dingle, just inside the county boundary, flying round a hollow oaktree that had been blown down and was lying on the ground. The insect, in flight, is exceedingly like a humble bee, and might easily be mistaken for it.

Gnorimus nobilis, L. Hereford,
July, 1891, E. W. Bowell;
West Malvern (Tomlin).
This is one of our most
beautiful British beetles, but
it appears to be exceedingly

#### BUPRESTIDAE

Agrilus angustulus, Ill.

#### ELATERIDAE

Lacon murinus, L. Cryptohypnus quadripustulatus, F. Limonius minutus, L.

Athous niger, L.

- haemorrhoidalis, F.
- vittatus, F.
- longicollis, Ol.

Corymbites pectinicornis, L.

- cupreus, F.
- tessellatus, L.
- quercus, Gyll.
- var. ochropterus, Steph.

Agriotes sputator, L.

- lineatus, L.
- obscurus, L.
- sobrinus, Kies.
- pallidulus, Ill.

Dolopius marginatus, L.

Adrastus limbatus, F.

Campylus linearis, L.

#### DASCILLIDAE

Helodes minuta, L.

— marginata, F.

Microcara livida, F.

Cyphon pallidulus, Boh.

Scirtes hemisphaericus, Ill.

#### LAMPYRIDAE

Lampyris noctiluca, L.

#### TELEPHORIDAE

Podabrus alpinus, Payk. Ancistronycha abdominalis, F. (Yerbury)

#### TELEPHORIDAE (continued)

Telephorus rusticus, Fall.

- lividus, L.

- pellucidus, F.

- nigricans, Müll.

— var. discoideus, Ahr.

- bicolor, F.

- haemorrhoidalis, F.

- flavilabris, Fall.

Rhagonycha unicolor, Curt. West Malvern (Tomlin)

— fulva, Scop.

— testacea, Ôl.

- limbata, Thoms

- pallida, F.

Malthinus fasciatus, Ol.

- frontalis, Marsh

- punctatus, Fourc.

Malthodes marginatus, Latr.

- flavoguttatus, Kies.

- minimus, L. (sanguinolentus, Fall.)

West Malvern

- misellus, Kies. (Tomlin)

- atomus, Thoms. West Malvern

(Tomlin)

#### MELYRIDAE

Malachius aeneus, L. - bipustulatus, L.

Axinotarsus ruficollis, Ol. West

Malvern (Tomlin) Anthocomus fasciatus, L. Eardisley Dasytes aerosus, Kies. (plumbeoniger, Goeze)

#### **CLERIDAE**

Tillus elongatus, L. Hereford Corynetes coeruleus, De G. Necrobia ruficollis, F.

#### CISSIDAE

Cis boleti, Scop. Octotemnus glabriculus, Gyll.

#### **PTINIDAE**

Ptinus fur, L. - tectus, Boield. Niptus hololeucus, Fald. Anobium domesticum, Fourc. - fulvicorne, Sturm. West Malvern (Tomlin) - paniceum, L. Ptilinus pectinicornis, L. Ochina ĥederae, Müll. Xyletinus ater, Panz. A few specimens of this rare species were taken by Dr. Chapman in and on a gate-post close to Burghill Church. The post was not a very old one, in which the beetles had completed the destruction of a

#### PTINIDAE (continued)

slip of sapwood, which was beginning to rot. The burrows, according to Dr. Chapman, are rather large, but of Anobium irregularity

#### PRIONIDAE

Prionus coriarius, L. Eardisley

#### CERAMBYCIDAE

Callidium alni, L. Clytus arietis, L. - mysticus, L. Rhagium inquisitor, L. - bifasciatum, F. Toxotus meridianus, L. Pachyta cerambyciformis, Schr. collaris, L. (Yerbu y) Leptura livida, F. Strangalia armata, Herbst.

- melanura, L.

Grammoptera tabacicolor, De G.

- ruficornis, F.

#### LAMIIDAE

Leiopus nebulosus, L. Pogonochaerus bidentatus, Thoms. (hispidus, Brit. Cat.). Under bark of apple trees. rington, &c. (Dr. Wood)

- dentatus, Fourc. (pilosus, F.). Under bark of apple trees. Tarrington, &c. (Dr. Wood)

Tetrops praeusta, L.

Stenostola ferrea, Schr. (Yerbury). Dr. Wood has also observed one or two other Longicorns, one of which, from his description, may very probably be Saperda scalaris, L.

#### BRUCHIDAE

Bruchus pectinicornis, L.

- rufimanus, Boh.

villosus, F.

#### **CHRYSOMELIDAE**

Donacia simplex, F. (linearis, Hoppe)

- vulgaris, Zsch. (typhae, Ahr.)

- semicuprea, Panz.

sericea, L.

- discolor, Panz. (comari, Suffr.)

- affinis, Kunze.

Lema lichenis, Voet. Crioceris asparagi, L. Cryptocephalus labiatus, L.

Chrysomela polita, L.

- didymata, Scriba.

CHRYSOMELIDAE (continued)

Phytodecta olivacea, Forst.

- pallida, L.

Gastroidea polygoni, L.

Phaedon cochleariae, F.

Phyllodecta vitellinae, L. Hydrothassa marginella, L.

Lochmaea capreae, L.

- crataegi, Forst. (sanguinea, F.)

Galerucella sagittariae, Gyll. - tenella, L.

Sermyla halensis, L.

Longitarsus luridus, Scop.

- melanocephalus, Gyll.

— femoralis, Marsh. West Malvern (Tomlin). Swarming on Lithospermum officinale

Haltica lythri, Aubé

— coryli, All.

- oleracea, L.

Phyllotreta consobrina, Curt.

(melaena, Ill.)

- atra, Payk.

- punctulata, Marsh

- vittula, Redtb.

— undulata, Kuts

- nemorum, L.

Aphthona nonstriata, Goeze (coeru-

lea, Payk.) - venustula, Kuts.

- herbigrada, Curt. Batophila rubi, Payk.

Sphaeroderma testaceum, F.

– cardui, Gyll.

Crepidodera transversa, Marsh

- ferruginea, Scop.

- rufipes, L.

- helxines, L.

– aurata, Marsh

Chaetocnema hortensis, Fourc. (ari-

della, Payk.)

Plectroscelis concinna, Marsh Psylliodes affinis, Payk.

Cassida viridis, L.

#### LAGRIIDAE

Lagria hirta, L.

#### CISTELIDAE

Cistela murina, L. Eryx ater, F. Leominster (J. J. Walker)

#### MELANDRYIDAE

Melandrya caraboides, L.

#### **PYTHIDAE**

Rhinosimus viridipennis, Steph. - planirostris, F.

## INSECTS

#### **PYROCHROIDAE**

Pyrochroa serraticornis, Scop. (rubens, F.)

- pectinicornis, L. This is, perhaps, the most interesting insect in the Herefordshire list. It was taken by Dr. Chapman, who records it in the Entomologist's Monthly Magazine for July, 1894, p. 163. He says, 'On the 1st June, Dr. Wood and myself made an exploration in the Herefordshire portion of the Black Mountain, where northern species occasionally reward our search. In an old birch stump I found two males and one female of Pyrochroa pectinicornis and two larvae thereof were also seen.' Later Dr. Chapman took it in some numbers and Mr. J. R. le B. Tomlin in July 1907. The only other British locality known is the Scotch Highlands

#### **OEDEMERIDAE**

Oedemera lurida, Marsh

#### MORDELLIDAE

Mordella aculeata, L. (Yerbury) Anaspis frontalis, L.

- pulicaria, Costa (forcipata, Muls.)
- ruficollis, F.
- subtestacea, Steph.
- maculata, Fourc. (melanopa, Forst.)

#### RHIPIDOPHORIDAE

Metoecus paradoxus, L.

# MELOIDAE

Meloe violaceus, Marsh

# CURCULIONIDAE

Apoderus coryli, L. Rhynchites aequatus, L. - aeneovirens, Marsh

# CURCULIONIDAE (continued)

Apion pomonae, F.

- carduorum, Kirby

pallipes, Kirby. West Malvern (Tomlin)

-- aeneum, F. - striatum, Kirby

- pubescens, Kirby. West Malvern (Tomlin)

- seniculum, Kirby — varipes, Germ.

- fagi, L. - trifolii, L.
- flavipes, F. - nigritarse, Kirby - tenue, Kirby

- virens, Herbst.

- unicolor, Kirby (platalea, Germ.). West Malvern (Tomlin)

- ervi, Kirby

- filirostre, Kirby. West Mal-

vern (Tomlin)

- pisi, F. — aethiops, Herbst

- loti, Kirby

- vorax, Herbst - miniatum, Germ.

- violaceum, Kirby

- humile, Germ.

Otiorrhynchus picipes, F. Strophosomus coryli, F.

- faber, Herbst

Exomias araneiformis, Schr. Brachysomus echinatus, Bons.

Sciaphilus muricatus, F. Polydrusus undatus, F.

Phyllobius calcaratus, F.

- alneti, F.

- pyri, L. - argentatus, L.

— oblongus, L.

- viridiaeris, Laich (uniformis,

Marsh)

Alophus triguttatus, F. Sitones flavescens, Marsh

-- suturalis, Steph. - sulcifrons, Thunb.

- puncticollis, Steph.

- lineatus, L. - hispidulus, F. Hypera punctata, F.

#### CURCULIONIDAE (continued)

Hypera rumicis, L. - plantaginis, De G. - nigrirostris, F.

— trilineata, Marsh Liosoma ovatulum, Clairv. Orchestes quercus, L.

Rhamphus flavicornis, Clairv. Mecinus pyraster, Herbst

Anthonomus ulmi, De G. - pomorum, L. Cionus blattariae, F. - pulchellus, Herbst

Acalles turbatus, Boh. Coeliodes quadrimaculatus, L. Poophagus sisymbrii, F.

Ceuthorrhynchus assimilis, Payk.

- contractus, Marsh

- litura, F.

- chrysanthemi, Germ. (campestris, Brit. Cat.)

- quadridens, Panz. - pollinarius, Forst.

— sulcicollis, Gyll. Ceuthorrhynchidius floralis, Payk.

- troglodytes, F.

Rhinoncus pericarpius, F.

- perpendicularis, Reich. (subfasciatus, Gyll.)

Limnobaris T. album, L.

Balaninus venosus, Grav. (glandium, Brit. Cat.)

#### SCOLYTIDAE

Scolytus destructor, Ol.

- pruni, Ratz.

- intricatus, Ratz.

- rugulosus, Ratz. - multistriatus, Marsh

Hylastinus obscurus, Marsh Hylesinus crenatus, F.

- oleiperda, F. — fraxini, F.

vittatus, F.

Myelophilus piniperda, L. Cissophagus hederae, Schm. Ear-

disley Phloeopthorus rhododactylus,

Marsh Tomicus bidens, F. Platypus cylindrus, F.

#### LEPIDOPTERA

#### Butterflies and Moths

The following list runs to well over 1,300 species, the actual number being 1,332. Although it largely owes its size to its richness in Micros, yet the number is nevertheless large for a county which must be reckoned among the smaller ones, and has, moreover, neither coast-line, open sandy heaths, nor fens or marshes. It has, however, one valuable asset in a strip of mountain moorland on its Welsh side, which at its highest point is upwards of 2,200 ft. above sea-level, the greatest altitude in England proper south of Yorkshire. Here the fauna is largely of a northern character, and several interesting species seem to reach their most southerly English habitat on this elevated ground. Such, to mention only some of them, are Larentia caesiata, Hadena glauca, Pamplusia mercuriana,

The Leominster district, on the Old Red Sandstone, and that of and Nemophora pilella. Woolhope on the Silurian Limestone, have been pretty exhaustively worked—the former (especially in the Macros) by the late Mrs. Hutchinson and her family, and the latter by the present writer: but elsewhere much remains to be done. The north side especially, where the surface is bold and in part mountainous, and the Silurian Limestones have broken through the Old Red just as they have in the south-east, is quite unworked ground. A few old and interesting records were made at Ross by the Rev. W. Purchas and his brother. Then Mr. Harman, in the late 'sixties, collected assiduously for a few years at Whitfield and took many good things. The Rev. S. C. Watkins, besides his notable capture of Sesia scoliaeformis, which is probably the only example of this rare insect that has been taken outside its Scotch and Welsh homes, has done some good work among the Macros at Kentchurch, while Mr. Pilley, the assistant secretary of the Woolhope Club, furnished many of the particulars of the Hereford captures. A fair number of species have owed their introduction to the British list to having been taken first in this county, some of them at the same time being new to science, of which notice will be taken in their places. But two insects, perhaps, deserve more particular mention. Both are connected with that characteristic feature of the county—the orchard. One, the lovely Cerostoma asperella, whose right to inclusion in our lists was fast verging on the traditional, was re-discovered by Mrs. Hutchinson at Leominster, in 1865, and continued to be taken at intervals by herself or members of her family up to 1886. The other, Ditula woodiana, though rather secluded in its habits, is by no means scarce wherever old apple trees well covered with mistletoe are to be found. At present it is exclusively a Herefordshire insect, and has not occurred elsewhere either at home or abroad.

#### RHOPALOCERA

Aporia crataegi, L.; formerly at Leominster (Hutchinson) and Ross (Rev. W. H. Purchas), sparingly; latest date 1860, Leominster

Pieris brassicae, L. P. rapae, L. P. napi, L.

Anthocharis cardamines, L.

Leucophasia sinapis, L.; not uncommon some years in many of the woods of Ledbury and Woolhope districts, but rare in those of Leominster; an odd one or so occasionally seen in the autumn

Colias hyale, L.; Leominster, one in 1868; Eastnor, one in 1904 or 1905. C. edusa, L.; very sporadic in its appearance; var. helice, Leominster, rare

Gonepteryx rhamni, L.; widely distributed, but not common

Thecla betulae, L.; Llangrove Common, one between fifty and sixty years ago (Rev. W. H. Purchas).
T. w-album, Knoch., widely distributed. T. quercus, L. T. rubi, L.; not common.

Chrysophanus phlaeas, L.; by no means common in Herefordshire

Polyommatus aegon, Schiff.; Titley, taken by Percy Horne, about 1875. P. agestis, Hub.; common, at least in Woolhope district. P. alexis, Hub. P. argiolus, L. P. alsus, Schiff.; extremely local, confined to some old gravel quarries at Burghill, where it was discovered by Dr. Chapman and where it still exists. P. acis, Schiff.; taken by the late Edward Newman, near Leominster, in 1832 and few following years, but locality has since been searched for it in vain

Nemeobius lucina, L.; Woolhope district, common Apatura iris, L.; of regular occurrence at Doward, perhaps also at Eastnor; rarely in the middle (Cowarne) and south-west (Pontrilas) of the county

Vanessa c. album, L.; common. V. polychloros, L.; irregular in its appearance. V. urticae, L. V. io, L. V. antiopa, L.; once seen by the Rev.

#### RHOPALOCERA (continued)

Thos. Hutchinson many years ago, Leominster. V. cardui, L.

Argynnis paphia, L. A. adippe, L. A. aglaia, L.; not common. A. selene, Schiff. A. euphrosyne, L.

Melitaea artemis, Hb.; Leominster and Woolhope districts, very local and often shifting its habitat

Melanargia galathea, L.; Eastnor, in small numbers Satyrus semele, L.; common on Malvern Hills Pararge aegeria, L.; common. P. megaera, L. Epinephile janira, L. E. tithonus, L. E. hyperanthus, L.

Caenonympha pamphilus, L. Syrichthus alveolus, Hb. Hesperia linea, F. H. sylvanus, Esp. Nisoniades tages, L.

#### HETEROCERA

#### Sphinges

Smerinthus ocellatus, L. S. populi, L. S. tiliae, L. Acherontia atropos, L.; uncertain in its appearance, and scarce

Sphinx convolvuli, L.; at one time was of almost annual occurrence at *Leominster*; in 1868 Mrs. Hutchinson and her family took twenty-seven over petunia; very rare in *Woolhope* and *Ledbury* districts. S. ligustri, L.

Deilephila galii, Schiff.; once over petunia at Leominster in 1870, and more recently at Ross

Chaerocampa celerio, L.; a single example taken by the Rev. J. H. Mapleton at *Tarrington* about 1855; another at *Hereford* 1885 (Jas. B. Pilley). C. porcellus, L.; C. elpenor, L.; elpenor the commoner in the *Ledbury* and *Woolhope* districts, and porcellus in the *Leominster* 

Macroglossa stellatarum, L.; not common. M. bombyliformis, widely distributed, but always

singly

#### HETEROCERA (continued)

#### Sphinges (continued)

Sesia scoliaeformis, Hub.; once by the Rev. S. Cornish Watkins in July 1893, settled on a stone in River Gwyne. This river, till the readjustment of the counties, was for some distance the divide between Herefordshire and Monmouthshire, and its botany is still included in the Herefordshire flora. S. spheciformis, Schiff.; Stoke Edith and Lynton Woods, more than once found in the afternoon paired on the twigs of birch bushes; feeds in stems of birch as well as alder. S. tipuliformis, L. S. cynipiformis, Esp.; larvae in the stools of oak, under the bark; common. S. myopaeformis, Bork.; larva on the trunk of apple trees, under the bark, and generally where the latter has been injured by accident or disease. S. culiciformis, L.; larvae common in the stools of birch the first year after falling. S. ichneumoniformis, Schiff.; not uncommon at Doward and in Woolhope district. S. formicaeformis, Esp.; Ledbury and banks of Wye

Sphaecia bembeciformis, Hub. S. apiformis, L. Both

#### ZYGAENIDAE

Procris statices, L.; Leominster. P. geryon, Hub.; north end of Malvern Hill, common

Zygaena trifolii, Esp. Z. lonicerae, Esp. Z. filipendulae, L.

Zeuzera aesculi, L.

Cossus ligniperda, Fab.; not common in Herefordshire

Hepialus hectus, Ochs. H. lupulinus, L. H. sylvinus, L. H. velleda, Esp.; Croft Castle (Hutchinson), must surely also occur on the north and west of the county. H. humuli, L.

Sarothripa revayana, Schiff.; not uncommon Halias prasinana, L.; H. quercana, Schiff.; Woolhope, Ledbury, and Leominster districts, not rare

Nola cucullatella, L. N. confusalis, Hb.

Nudaria mundana, L.

Calligenia miniata, Forst.; Tarrington, Leominster, not

Setina mesomella, L.; Doward, Woolhope district, not rare

Lithosia complana, L.; Leominster, Doward, rare. L. complanula, Bdv. L. griseola, Hb.; Woolhope, common; var. stramineola, occasionally. L. rubricollis, L., Stoke Edith Wood, Ross

Deiopeia pulchella, L.; twice taken at or near *Here-ford*, at *King's Acre* by Mr. A. E. Edwards in 1880, and at *Breinton* by Mr. Du Buisson in 1882

Euchelia jacobaeae, L.; Doward and Woolhope district, abundant, but very local

Nemeophila plantaginis, L.; Woolhope, Black Mountain Arctia caja, L.

Phragmatobia fuliginosa, L.; Woolhope, Black Mountain

Spilosoma mendica, L. S. lubricipeda, L. S. menthrasti, Schiff.

Porthesia chrysorrhoea, L.; Whitfield about 1870 (F. E. Harman). P. auriflua, Fb. P. salicis, L.; Ledbury, Tarrington, scarce

#### ZYGAENIDAE (continued)

Psilura monacha, L.; Whitfield, common (F. E. Harman); Doward, Woolhope, scarce

Dasychira pudibunda, L.

Demas coryli, L.

Orgyia antiqua, L.
Epichnopteryx calvella, Ochs.; extremely local, Haugh
Wood, confined to the 'common' wood. Pupa
cases of female erect and firmly attached in the
forks of the bushes, common; of the male depending and loosely attached to the trunks of
trees, scarce

Fumea intermediella, Braund.

Paecilocampa populi, L.

Trichiura crataegi, L.

Eriogaster lanestris, L.

Clisiocampa neustria, L.

Lasiocampa quercûs, L.; L. rubi, L. Scarce generally, common on *Black Mountain*.

Odonestis potatoria, L.

Gastropacha quercifolia, L. The full-grown larvae usually taken when basking in the sunshine on the top of closely trimmed hawthorn hedges

Endromis versicolora, L. The larvae not uncommon some years in Stoke Wood; Ledbury, scarce

Saturnia carpini, W.V. Black Mountain, common, larva on heather; scarce in the lowlands, larva usually on apple.

Drepana falcataria, L.; D. hamula, D. unguicula, Hb. Woolhope and Doward, common; Leominster, scarce.

Platypteryx lacertinaria, L.

Cilix spinula, Schiff.

Cerura bicuspis, Bkh. In the west and south-west of the county, and thence across the centre at the level of *Hereford*; south of *Hereford*, in the *Ledbury* and *Woolhope* districts, quite unknown. Most of the specimens have been bred from pupae collected by Dr. Chapman, but the collector is often forestalled by birds or mice (?). C. furcula, L.; not uncommon. C. bifida, Hb.: not uncommon. C. vinula, L.

Hb.; not uncommon. C. vinula, L.
Stauropus fagi, L. Whitfield (F. E. Harman), Leominster, Woolhope, Ledbury; always scarce.

Notodonta dictaea, L. N. dictaeoides, Esp.; not rare.
N. ziczac, L. N. trepida, Esp.; widely distributed, and not rare in Woolhope district. N. dromedarius, L.

Drymonia chaonia, Hb. D. dodonaea, Schiff.; the commoner of the two; at least in the Woolhope district

Lophopteryx camelina, L.

Pterostoma palpina, L.

Petasia cassinea, Schiff.

Pygaera bucephela, L.

Clostera curtula, L.; common. C. reclusa, Fb.; extremely local, confined to *Haugh Wood*, where the larva is not uncommon on aspen

Diloba caeruleocephala, L.

#### NOCTUAE

Gonophora derasa, L.

Thyatira batis, L.

Cymatophora Duplaris, L. C. fluctuosa, Hb. C. or, Schiff.; Woolhope, the least common of the species. C. ocularis, L.

NOCTUAE (continued)

NOCTUAE (continued)

A. flavicornis, L. A. ridens, Asphalia diluta, Schiff. Fb.: the larva common

Acronyeta leporina, L.; the grey form bradyporina does not occur. A. aceris, L.; Leominster, rare. A. megacephala, Schiff. A. alni, L.; rather scarce. A. tridens, Schiff. A. psi, L. A. rumicis, L. A. ligustri, Schiff. Agrotis suffusa, Hb. A. segetum, Schiff. A. corticea,

Hb.; rather uncommon. A. cinerea, Hb.; Leominster, rare. A. puta, Hb.; Tarrington, not uncommon. A. exclamationis, L. A. cursoria, Hb.; reported years ago from Ross by Mr. Alfred Purchas. A. nigricans, L.; Tarrington, Leominster. A. tritici, L.; Ross (A. Purchas). A. aquilina, Hb.; Ashperton Park, rare. A. obelisca, Hb.; Leominster, rare. A. porphyrea, Hb.; Woolhope, Nash Scarr. A. saucia, Hb. A. ravida, Hb.; Ross (A. Purchas)

Axylia putris, L.

Triphaena fimbria, L. T. janthina, Esp. T. interjecta, Hb.; common. T. subsequa, Hb.; Hereford, rare. T. orbona, Fb. T. pronuba, L.

Noctua glareosa, Esp.; Woolhope, common. N. augur, Fb. N. plecta, L. N. triangulum, Tr. N. c-nigrum, L. N. brunnea, Fb. N. dahlii, Hb.; Woolhope, common. N. festiva, Hb. N. baja, Fb. N. rubi, Viewig. N. umbrosa, Hb. N. xanthographa, Fb.

Eurois herbida, Hb.; Woolhope, common. E. adusta, Esp.; Woolhope, Leominster, not common

Charaeas graminis, L.; the male common, flying in the early morning; the female rare, flying in the afternoon

Heliophobus popularis, Fb. H. cespitis, Fb.; Leominster, at light

Xylomiges conspicillaris, L.; Tarrington, generally taken at rest on gates and gate-posts. The form taken at large is always the V. melaleuca, but amongst a large brood reared from eggs laid by a moth taken 4 June, 1877, a fair number of both the grey-brown type and the V. intermedia appeared

Neuria saponariae, Bkh.; not common, Woolhope, Leominster

Aplecta tincta, Hb. Common in birch woods. H. nebulosa, Hufn.

Hadena contigua, Vill. The larva often beaten from golden rod (Solidago virgaaurea). thalassina, Rott. H. suasa, Bkh.; scarce. H. pisi, L. H. oleracea, L. H. genistae, Bkh.; fairly common. H. glauca, Hb.; bred from a larva found upon heather on the top Black Mountain; probably much commoner than is indicated by a single capture. H. dentina, Esper.

Mamestra brassicae, L. M. persicariae, L.; apparently confined to the Woolhope district, where it is

Hecatera dysodea, H. City of Hereford, once (Hutchinson). H. serena, Fb.

Dianthaecia carpophaga, Bkh. D. cucubali, Fuessl. D. capsincola, Hb. D. conspersa, Esp.

Polia flavicincta, Fb. P. chi, L.; for many years common in the Leominster district, before finding its way, about 1885, into the Woolhope area, where it quickly established itself. Only the pale form found

Dryobota protea, Bork. Cleoceris viminalis, Fb.

Chariptera aprilina, L.

The dark variety, V. Miselia oxyacanthae, L. capucina, common

Luperina testacea, Hb. Cerigo cytherea, Fb.

Hama abjecta, Hb.; Ashperton Park, once at sugar,

30 July, 1870. H. anceps, Hb. Xylophasia lithoxylea, Fb. X. polyodon, L. X. rurea, Fb. X. hepatica, Hb. X. scolopacina, Esp.; Stoke Wood, both bred and captured at sugar

Apamea basilinea, Fb. A. gemina, Hb. A. una-

nimis, Tr. A. oculea, Gn.

Celaena Haworthi, Curt. Scarce Hereford and Leech Pool, Clifford. Its absence from the Black Mountain, where its food plant, Eriophorum vaginatum, abounds, is remarkable

Miana literosa, Haw.; not common. M. strigilis, Clerck. M. fasciuncula, Haw. M. furuncula, Tr.; Tarrington, not common

Dipterygia pinastri, L.; Doward, taken by Mr. E. W. Bowell

Euplexia lucipara, L. Phlogophora meticulosa, L.

Hydraecia nictitans, Bkh. H. micacea, Esp.

Gortyna flavago, Esp.

Nonagria typhae, Esp.; common Tapinostola fulva, Hb.; common

Leucania impura, Hb. L. pallens, L. L. comma, L. L. conigera, Fb. L. lithargyria, Esp. L. turca, L.; Stoke Wood, at sugar, scarce

Panolis piniperda, Panzer

Taeniocampa gothica, L. T. miniosa, Fb.; general, and in parts common. T. cruda, Tr. T. stabilis, Viewig. T. populeti, Tr.; moderately common. T. opima, Hb.; northern parts, Leominster and Bromyard. T. instabilis, Esp. T. gracilis, Fb.; appears later in the spring than its congeners

Pachnobia leucographa, Hb.; commoner in Herefordshire than the next species. P. rubricosa, Fb.

Rusina tenebrosa, Hb.

Mania maura, L. Naenia typica, L.

Amphipyra pyramidea, L. A. tragopogonis, L.

Toxocampa pastinum, Tr. One specimen at rest on a window in city of Hereford about 1885 (A. Edwards)

Hydrilla arcuosa, Haw.; common Caradrina morpheus, Tr. C. alsines, Bkh. blanda, Tr.; not so common as the preceding species. C. cubicularis, Bkh.

Grammesia trilinea, Bkh.; the variety, v. bilinea, not uncommon

Dyschorista upsilon, Bkh.

Dicycla oo, L.; rare, Ashperton Park and Ledbury

Calymnia trapezina, L. C. pyralina, Schiff.; scarce, Leominster and Tarrington. C. diffinis, L.; occasionally. C. affinis, L.; frequent

Tethea subtusa, Schiff.; fairly common. T. retusa, L.; not so common as the preceding

Orthosia rufina, L. O. ferruginea, Schiff. O. pistacina, Schiff. O. lunosa, Haw. O. lota, L. O. macilenta, Hb.

Cirradia xerampelina, Hb.; not scarce

# NOCTUAE (continued)

Xanthia citrago, L. X. cerago, Schiff. X. silago, Hb. X. aurago, Schiff.; common and widely distributed. X. gilvago, Esp.; scarce but widely distributed, Leominster, Ledbury, Woolhope

Hoporina croceago, Schiff. Fairly common; taken occasionally at sallows in the spring

Dasycampa rubiginea, Schiff. Occasionally, Ledbury, Woolhope

Cerastis vaccinii, L. C. ligula, Esp.; not rare

Scopelosoma satellitia, L.

Xylina semibrunnea, Haw.; not uncommon. X. petrificata, Schiff.; scarcer than the last in the Woolhope district. X. rhizolitha, Fb.

Xylocampa lithoriza, Bork.

Calocampa exoleta, L. Scarce, but widely distributed, Whitfield (F. E. Harman), Leominster, Woolhope. C. vetusta, Hb.; Whitfield, several (F. E. Harman)

Cucullia verbasci, L. The larva often found in Herefordshire on Scrophularia aquatica. C. asteris, Schiff.; the larva common among golden rod (Solidago virgaurea). C. chamomillae, Schiff.; rather scarce. C. umbratica, L.

Plusia chrysitis, L. P. bractea, Fb. Taken many years ago by the Rev. T. Hutchinson at Leominster. P. festucae, L.; scarce, taken many years ago at Leominster and more recently at Tram Inn. P. pulchrina, Haw.; generally distributed and fairly common in Woolhope district. P. iota, L. P. gamma, L.

Habrostola urticae, Hb. H. triplasia, L.

Chariclea marginata, Fb.

Heliothis armigera, Hb. Twice at *Leominster* by Mr. Thomas Hutchinson. H. peltigera, Schiff.; Once at *Burghill* by Dr. Chapman.

Heliodes arbuti, Fb.

Erastria fuscula, Bkh. Common in one or two places in *Woolhope* district amongst Calamagrostis epigejos, which is its food plant in Herefordshire

Bryophila perla, Fb.

Phytometra aenea, Hb. Woolhope, abundant Anarta myrtilli, L. Black Mountain, Nash Scarr

Gonoptera libatrix, L.

Catocala nupta, L.

Euclidia glyphica, L. E. mi, Clerck

Aventia flexula, Schiff.; Leominster, Woolhope, occasionally

Herminia barbalis, Clerck. H. tarsipenna'is, Tr. H. grisealis, Hb.

Hypenodes albistrigalis, Gn.; Woolhope, not uncommon. H. costaestrigalis, Steph.; Woolhope, common

Hypena rostralis, L. H. proboscidalis, L.

Rivula sericealis, Scop.

Brephos parthenias, L.; common among birch in woods. B. notha, Hb.; not uncommon among aspens in woods

#### **GEOMETRAE**

Ourapteryx sambucata, L. Angeronae prunaria, L.; Woolhope, Ledbury Rumia crataegata, L.

#### GEOMETRAE (continued)

Cabera pusaria, L. The variety rotundaria once bred by Mrs. Hutchinson at *Leominster*. C. exanthemaria, Scop.

Bapta temerata, Schiff.; Woolhope, larva sometimes common upon blackthorn growing on rough ground; Kentchurch (Rev. S. C. Watkins)

Macaria liturata, L.

Halia wauaria, L.

Panagra petraria, Hb.

Fidonia atomaria, L. F. piniaria, L.; the white northern form is the one that occurs in Herefordshire

Numeria pulveraria, L.

Aspilates strigillaria, Hb.; on mountain limestone, Doward; Wenlock limestone, Woolhope; and on cornstones, Castle Frome; extremely local, but common where it occurs

Eurymene dolobraria, L.

Odontoptera bidentata, L.

Ennomos alniaria, L. E. fuscantaria, Haw. The presence of the larva may often be detected by the semicircular pieces it eats out of the ashleaf, which look just like the work of a leaf-cutting bee. E. erosaria, Schiff. E. angularia, Schiff.

Crocallis elinguaria, L.

Himera pennaria, L.

Selenia illustraria, Hb. S. lunaria, Schiff. S. illunaria, Hb.

Pericallia syringaria, L.; not common.

Epione advenaria, Hb.; Woolhope, common in some of the woods, and often where there is no bilberry. E. apiciaria, Schiff.

Metrocampa margaritata, L.

Ellopia fasciaria, L.

Biston prodromarius, Schiff. B. betularius, L.; the black form has been taken once, about ten or twelve years ago, by Mr. Hutchinson at Leominster

Phigalia pilosaria, Schiff.

Nyssia hispidaria, Schiff; Woolhope, not rare

Gnophos obscurata, Schiff.; Woolhope, on the Wenlock limestone

Cleora lichenaria, Schiff. C. glabravia, Hb.; once at the *Doward* by Mr. E. W. Bowen; the insect now in J. H. Wood's collection

Tephrosia laricaria, Stn.; Woolhope. T. biundularia, Esp. T. extersaria, Hb.; Woolhope, fairly common. T. punctularia, Schiff.

Boarmia repandata, L. B. rhomboidaria, Schiff.

Hemerophila abruptaria, Thunb.

Hibernia aurantiaria, Hb. H. defoliaria, L. H. progremmaria, Hb. H. leucophaearia, Schiff. H. rupicapraria, Schiff.

Anisopteryx aescularia, Schiff.

Abraxas grossulariata, L. A. ulmata, Fb.; abundant wherever the wych-elm grows

Ligdia adusta, Schiff.

Lomaspilis marginata, L.

Pseudoterpna cytisaria, Schiff.

Geometra papilionaria, L.

Iodis vernaria, L.; Woolhope, common. I. lactaearia, L.

Phorodesma bajularia, Schiff.; Kentchurch (Rev. S. C. Watkins), Tarrington. The moth gets on the wing just after sunset

Hemithea thymiaria, L.

GEOMETRAE (continued)

Ephyra porata, L. E. punctaria, L. E. trilinearia, Bork. E. omicronaria, Schiff. E. pendularia, I.

Hyria auroraria, Gn.; taken many years ago at Ross

by Mr. A. Purchas

Acidalia scutulata, Schiff. A. bisetata, Bork. A. trigeminata, Haw.; not uncommon. A. dilutaria, Hb.; Tarrington, common. A. incanaria, Hb. A. subsericeata, Haw.; Woolhope, common. A. remutaria, Hb. A. aversata, L. A. inornata, Haw.

Bradyepetes amataria, L.

Ania emarginata, L.

Melanippe hastata, L. Common in birch woods. M. tristata, L.; Leominster, rare; Black Mountain district, common. M. rivata, Hb.; common in Woolhope district. M. subsistrata, Haw. M. galiata, Schiff.; Leominster, scarce in Herefordshire.

Melanthia rubiginata, Schiff. M. ocellata, L. M. albicillata, L. M. procellata, Schiff.; Woolhope, common on the limestone, scarce elsewhere. M. unangulata, Hw.; Leominster occasionally, Kentchurch (Rev. S. C. Watkins)

Anticlea rubidata, Schiff. A. badiata, Schiff. A.

derivata, Schiff.

Coremia montanata, Schiff. C. fluctuata, L. C. propugnata, Schiff. C. ferrugata, L. C. unidentaria, Haw.; not uncommon. C. quadrifasciaria, L.; once at Whitfield in 1872 (F. E. Harman). C. pectinaria, Fuessl. C. multistrigaria, Haw. C. didymata, L.

Larentia caesiata, Schiff.; Black Mountain, abundant.
A. olivata, Schiff.; Doward, not uncommon;

Woolhope, scarce.

Asthena luteata, Schiff. A. candidata, Schiff. A. sylvata, Schiff.; scarce. A. Blomeri, Curt.; Woolhope, confined to one or two places, where it is fairly common.

Eupisteria heparata, Schiff.

Minoa euphorbiata, Schiff. Very common in woods Sterrha sacraria, L. One was taken in 1867 at Grantsfield, near Leominster (Mrs. Hutchinson). Emmelesia affinitata, Steph. E. alchemillata, L.

Emmelesia affinitata, Steph. È. alchemillata, L. More common in the county than affinitata. E. albulata, Schiff. E. decolorata, Hb. E. unifasciata, Haw; Woolhope, common some years in the larval state

Cidaria psittacata, Schiff.; common. C. miata, L.; common. C. corylata, Thumb. C. picata, Hb.; Woolhope, rather scarce. C. russata, Schiff. C. immanata, Haw. C. suffumata, Schiff. C. silaccata, Schiff. C. prunata, L. C. dotata, L. C. fulvata, Forst. C. pyraliata, Bork. C. populata, L.; Black Mountain, very common. C. testata, L.

Scotosia vetulata, Schiff.; local, but widely distributed.
S. rhamnata, Schiff.; very local and scarce,
Mordiford. S. undulata, L. S. dubitata, L.
S. certata, Hb.; Tarrington, common

Camptogramma bilineata, L.

Phibalapteryx fluviata, Hb.; Whitfield (Harman), Leominster. P. lignata, Hb.; Tarrington, rather scarce. P. vitalbata, Schiff.; common on the limestone, Woolhope and Doward. P. tersata, Schiff.; not so restricted in its habitat as vitalbata GEOMETRAE (continued)

Thera firmata, Hb. T. variata, Schiff. Hypsipetes ruberata, Freyer. H. impluviata, Schiff.

H. elutata, Schiff; on the Black Mountain a very small form occurs of a rich brown colour much mottled by the breaking up of the usual lines and bands

Oporabia dilutata, Schiff.

Cheimatobia boreata, Hub.; common. C. brumata,

Lobophora lobulata, Hb. L. hexapterata, Schiff.; common in woods among aspen. L. sexalisata, Hb.; scarce. L. viretata, Hb.; Hereford (Dr. Chapman), Woolhope. L. polycommata, Schiff.; Ledbury; the larvae not uncommon in some of the lanes, feeding upon hedgerow privet

Chesias spartiata, Fb. C. obliquaria, Schiff.; Woolhope, not common

Anaitis plagiata, L.

Eubolia palumbaria, Schiff. E. bipunctaria, Schiff.;

Woolhope and Doward, on the limestone. E. cervinata, Schiff. E. mensuraria, Schiff.

Eupithecia venosata, Fb. E. consignata, Bkh.; Leominster, Woolhope. Since 1874, when a fertile female was captured at Leominster, Mrs. Hutchinson and latterly Miss Hutchinson have succeeded in rearing the moth from year to year to the present time (1906), without the race suffering in size, beauty, or fertility, the only noticeable change being in the disposition of the perfect insect, which no longer resents interference, and allows itself to be handled freely without attempting to fly. Once only has fresh blood been introduced, namely, in 1888, when a cross was obtained with a male bred from a wild larva taken the previous year, from which a few fertile eggs were obtained, but were not kept separate from those laid at the same time by the inbred moths. E. pulchellata, Steph. E. linariata, Schiff.; Ledbury, very local. E. centaureata, Schiff. E. succenturiata, L. E. subfulvata, Haw.; taken only at Leominster. E. irriguata, Hb.; rather scarce. E. indigata, Hb. E. lariciata, For. E. castigata, Haw. E. virgaureata, Newman; Woolhope once, Leominster. E. albipunctata, Haw. E. pimpinellata, Hb.; local Hereford (Dr. Chapman), Ledhur Wool, local, Hereford (Dr. Chapman), Ledbury, Woolhope. E. satyrata, Hb.; Woolhope, common. E. plumbeolata, Haw, E. isogrammata, H.-S. E. trisignata, H.-S.; Wcolhope, larva common. E. valerianata, Hb.; Woolhope, and probably elsewhere. E. fraxinata, Crewe; the larva has a special fondness for the little twigs that sprout from the trunks of pollarded ash. E. subnotata, Hb. E. campanulata, H.-S.; Ledbury and Woolhope, the larva common. E. vulgata, Haw. E. expallidata, Gn.; common. E. absinthiata, L. E. minutata, Hb.; Eastnor, probably overlooked elsewhere. E. assimilata, Dbld. E. tenuiata, Hb. E. subciliata, Gn. E. dodonaeata, Gn.; scarce. E. abbreviata, Steph. E. exiguata, Hb. E. sobrinata, Hb. E. coronata, Hb. E. rectangulata, L. pumilata, Hb.

Tanagra chaerophyllata, L.; Black Mountain district,

common; Eastnor, scarce

#### **PYRALIDES**

#### CRAMBI (continued)

Pyrausta purpuralis, L. P. ostrinalis, Hb. P. punicealis, Schiff.; common on the mountain limestone of the Doward, not elsewhere. cespitalis, Schiff. P. cingulalis, Schiff.; Here-fordshire Beacon, common. P. anguinalis, Hb.; Doward and Woolhope. P. octomaculalis, Tr.; Doward and Woolhope

Botys pandalis, Hb. B. hyalinalis, Hb.; Doward, common. B. fuscalis, Schiff. B. asinalis, Hb.; Doward, the larva rather common. B. sambucalis, Schiff. B. crocealis, Hb. B. ferrugalis, Hb.; scarce. B. forficalis, L. B. lutealis, Haw. B. olivalis, Schiff. B. prunalis

Pionea stramentalis, Hb.; extremely local, but abundant

Perinephile lancealis, Schiff.; Woolhope, Doward Spilodes cinctalis, Tr.; Woolhope, rather scarce. S. verticalis, Schiff. S. urticalis, Schiff.

Nomophila hybridalis, Hb.

Aglossa pinguinalis, L.

Pyralis glaucinalis, L.; Woolhope and Leominster districts, occasionally. P. farinalis, L.

Cataclysta lemnalis, Schiff. Paraponyx stratiotalis, Schiff.

Hydrocampha nymphaealis, Schiff. H. stagnalis, Gn. Acentropus niveus, Oliv.; Tarrington, common

Scoparia cembrae, Haw. Ledbury, Woolhope, common; larva in fleshy root of Picris hieracioides. S. basistrigalis, Knaggs; Woolhope. S. ambigualis, Tr. S. ulmella, Dale; Woolhope, common. S. dubitalis, Hb. S. murana, Curt; Black Mountain, common. S. truncicolella, Stn. S. resinea, Haw.; orchards, on the trunks of apple trees. S. crataegella, Hb. S. mercurella, L. S. angustea, Steph.; Tarrington, not common. S. pallida, Steph.; Woolhope, in all the small boggy spots

Chrysocoris festaliella, Hb.

#### PTEROPHORI

Platyptilus gonodactylus, Schiff.

Amblyptilus acanthodactylus, Hb. A punctidactylus, Haw.; Woolhope and Leominster, uncommon

Oxyptilus parvidactylus, Haw.; abundant on the mountain limestone of the Doward, but does not occur on the Silurian limestones of Wool-

Mimaeseoptilus phaeodactylus, Hb. M. bipunctidactylus, Haw. M. zophodactylus, Dup.; Woolhope. M. pterodactylus, L.

Oedematophorus lithodactylus, Tr.

Pterophorus monodactylus, L.

Leioptilus tephradactylus, Hb.; Woolhope. L. microdactylus, Hb.; Woolhope. L. osteodactylus, Zell.; Woolhope

Aciptilus galactodactylus, Hb. A. baliodactylus, Zell.; Doward. A. tetradactylus, L.; Woolhope and Doward. A. pentadactylus, L.

Orneodes polydactyla, Hb.

#### CRAMBI

Phycita spissicella, F.

Dioryctria splendidella, H. S.; Stoke Wood and Castle Frome, among Pinus abies: the cones in which the larvae have fed may often be found under the trees late in the autumn

Salebria hostilis, Steph.; Haugh Wood, where the larva is sometimes not uncommon. S. betulae, Goze. S. fusca, Haw.; Black Mountain

Pempelia dilutella, Steph.

Cryptoblabes bistriga, H. W.; Tarrington, scarce Acrobasis consociella, Hb. A. tumidella, Zk. Rhodophaea advenella, Zk. R. suavella, Zk.

Myelois cribrella, Hb.; Woolhope district, rather scarce. M. ceratoniae, Zell; Hereford (Dr. Chapman) Euzophera pinguis, Haw. In both Leominster and

Woolhope districts, but rather scarce

Alispa angustella, Hb.; Woolhope, singularly local, keeping to the same spindle bush year after year

Homaeosoma nebulella, Hb.; Woolhope

Ephestia Kühniella, Zell.; Hereford. E. elutella, Hb. E. semirufa, Stn.; Tarrington, common some years back both at light and sugar: probably still to be found if looked for

Crambus falsellus, Schiff. Widely distributed and fairly common. C. pratellus, L. C. dumetellus, Hb.; Moreton Jeffreys, on a gravelly bank, common; apparently nowhere else in the county. C. pascuellus, L. C. uliginosellus, Zell.; Woolhope, abundant in all boggy places. C. pinetellus, L. C. perlellus, Scop. C. selasellus, Hb. C. tristellus, Fb. C. inquinatellus, Schiff.; Woolhope, not recorded from Leominster. C. geniculeus, Haw. C. chrysonuchellus, Scop.; Herefordshire Beacon, abundant. C. culmellus, L. C. hortuellus, L.

Schoenobius forficellus, Thunb.; Tarrington

Aphomia sociella, L.

Achroia grisella, Fb.; Tarrington

#### TORTRICES

Tortrix podana, Scop. T. crataegana, Hb.; scarce.
T. xylosteana, L. T. rosana, L. T. sorbiana, Hb.
T. costana, Fb. T. diversana, Hb.; common in orchards, the larva feeding on apple. T. cinnamomeana, Tr.; Woolhope, common, but local. T. heparana, Schiff. T. ribeana, Hb. T. corylana, Fb.; a variety with the usual markings, obsolete or nearly so, is found occasionally. T. unifasciata, Dup. T. costana, Fb. T. viburnana, Fb.; common on Black Mountain, but not found in the lowlands. T. viridana, L. T. ministrana, L. T. forsterana,

Dichelia grotiana, Fb.; Woolhope, scarce

Amphisa gerningana, Schiff.; Black Mountain, not uncommon: probably its most southern English locality

Leptogramma literana, L. L. scabrana, Fb.; Leo-

minster (Hutchinson), scarce
Peronea sponsana, Fb. P. rufana, Schiff.; very
local, Haugh Wood, a few: feeds on sallow in Herefordshire. P. schalleriana, L. P. comparana, Hb. P. perplexana, Barr.; Woolhope, not uncommon. P. variegana, Schiff. P. cristana, Fb. P. hastiana, L. P. umbrana, Hb.; Woolhope, scarce; Leominster (Hutchinson), more frequent. P. ferrugana, Tr. P. caledoniana, Steph., Bent.; abundant on Black Mountain, but never in the lowlands, even where the bilberry is plentiful. P. logiana, Schiff.; Woolhope, common. P. aspersana, Hb.

TORTRICES (continued)

Teras caudana, Fb.

Dictyopteryx loeflingiana, L. D. bergmanniana, L. D. bifasciana, Hb.; Lynton Wood, once. D. conwayana, Fb. D. holmiana, L. D. forskaleana, L. D. contaminana, Hb.

Ptycholoma lecheana, L.

Ditula semifasciana, Haw.; Woolhope, scarce. D.
hartmanniana, L.; common. D. woodiana, Barr.; orchards, the moth at rest on the trunks of the apple-trees and the larva (more frequent) mining the leaves of mistletoe. There is no record of its having occurred outside the county, and it is apparently unknown abroad.

Penthina capreana, Hb.; Woolhope, rather scarce. P. picana, Froel. P. betulaetana, Haw. sororculana, Zett.; praelongana, Gn.; Woolhope, The larva lives beneath a web on common. the underside of a birch leaf, arching the leaf and eating only its under-surface; three or four leaves are used up in the course of its life. P. pruniana, Hb. P. ochroleucana, Hb. variegana, Hb. P. sauciana, Hb.; Black Mountain. P. gentiana, Hb.; very local, Dinmore Wood. P. marginana, Haw. P. carbonana, Dbld.; Woolhope, moderately common.

Antithesia salicella, L.

Hedya ocellana, Fb. H. lariciana, Zell. H. aceriana, Dup. H. dealbana, Fröl. H. neglectana, Dup. H. servillana, Dup.; Woolhope, not uncommon among Salix caprea

Spilonota incarnatana, Hb.; Woolhope, rather common in rough places among Rosa micrantha, Sm. (small flowered sweet brier). S. trimaculana, Haw. S. rosaecolana, Dbld. S. roborana, Tr.

Pardia tripuncta, Fb.

Aspis udmanniana, L.

Sideria achatana, Fb.; rather scarce

Sericoris euphorbiana, Fw.; very common in woods among Euphorbia amygdaloides, within the growing end of which the larva lives. S. bifasciana, Haw.; Woolhope, local. S. rivulana, Scop; conchana, Hb. Common in rough fields. S. urticana, Hb.; Woolhope

Roxana arcuana, Clerck.

Euchromia purpurana, Haw.; Woolhope, in neglected tillage fields, common

Orthotaenia antiquana, Hb. O. striana, Schiff. O. branderiana, L.; Haugh Wood, local and scarce. O. ericetana, Westw.; Woolhope, common

Phtheochroa rugosana, Hb.; Woolhope, local

Cnephasia politana, Haw.; confined to the Black Mountain, where it is abundant. C. musculana, Hb.

Sciaphila nubilana, Hb. S. abrasana, Dup.; Woolhope, a few; bred once from Genista tinctoria. S. subjectana, Gn. S. virgaureana, Tr. S. pascuana, Hb.; Woolhope, common. S. chrysantheana, Dup. S. incanana, Steph.; sinuana, Wilk.; Woolhope, not scarce. S. hybridana, Hb.

Capua favillaceana, Hb.

Clepsis rusticana, Tr.; Black Mountain, Kington

Bactra lanceolana, Hb.

Phoxopteryx siculana, Hb.; Lynton Wood, common among Rhamnus frangula. P. uncana, Hb. P. myrtillana, Tr.; Black Mountain, swarming; TORTRICES (continued)

Haugh Wood, scarce. P. lundana, Fb. diminutana, Haw.; Woolhope, rather scarce. P. mitterpacheriana, Schiff. P. lactana, Fb.

Grapholitha ramella, L. G. nisella, Clerck. G. subocellana, Don.; campoliliana, Tr. G. trimaculana, Don. G. penkleriana, Fisch. G. obtusana, Haw.; Woolhope, very common in woods. G. nigricana, H.-S.; a specimen taken in Stoke Wood about 1875 led to its inclusion in the British list; subsequently the moth was found flying commonly round silver fir in the afternoon sunshine, and the larva living in its terminal buds. The Herefordshire moth is a much darker insect than the continental type. G. naevana, Hb. G. geminana, Steph.; Black Mountain, and in the orchards of the lowlands

Phlaeodes tetraquetrana, Haw. P. immundana, Fisch Hypermecia cruciana, L.; angustana, Wlk.

Batodes angustiorana, Haw.

Paedisca bilunana, Haw. P. oppressana, Tr.; common. P. ratzeburghiana; tenerana, Dup.; Stoke Wood and Castle Frome, common among spruce fir. P. corticana, Hb. P. profundana, Fb. P. ophthalmicana, Hb. P. occultana, Dougl. P. solandriana, L. P. semifuscana, Steph.; Leominster (Hutchinson). P. sordidana, Hb.

Ephippiphora simulana, Hb. E. cirsiana, Zell.; Woolhope, common. E. pflugiana, Haw. E. brunnichiana, Frol. E. turbidana, Tr.; Dorstone and Cusop Dingle. E. inopiana, Haw. E. nigricostana, Haw. E. signata, Dougl.; Leominster (Hutchinson). E. trigeminana, Steph.; the Doward, common. E. tetragonana, Steph. E. populana, Fb.; ephippana, Hb.; Woolhope, rather scarce. E. obscurana, Steph.; Woolhope, not uncommon; the larva is an inquiline of the oak-apple and the woolly gall

Olindia ulmana, Hb.; common and generally distributed

Semasia spiniana, Fisch.; Woolhope, rather scarce. S. ianthinana, Dup. S. rufillana, Wilk.; Woolhope,

common. S. waeberiana, Schiff.

Coccyx strobilella, L. C. splendidulana, Gn. C. argyrana, Hb.; in Herefordshire the favourite food of the larva is apple. C. pygmaeana, Hb.; Stoke Wood, not uncommon. C. taedella, Clerck; hyrciniana, Uslar. C. distinctana, Bent.; Stoke Wood, fairly common; larva feeds in the needles of silver fir, tying several of them neatly together. C. nanana, Tr.; C. vacciniana, Fisch.; Black Mountain and Haugh Wood, common

Heusimene simbriana, Haw.; Widely distributed, but rather scarce

Pamplusia mercuriana, Hb.; Black Mountain, occasionally; also bred from heather

Retinea buoliana, Schiff. R. pinicolana, Dbld.; Stoke Wood, scarce. R. pinivorana, Zell.; Stoke Wood, common. B. sylvestrana, Curt.; Stoke Wood, scarce; bred from the pollen masses (catkins) of Pinus pinea

Carpocapsa splendidana, Hb. C. grossana, Haw.; Woolhope, scarce. C. pomonella, L.

Opadia funebrana, Tr.

Endopisa nigricana, Steph.

#### TORTRICES (continued)

Stigmonota dorsana, Fb.; common in upland meadows at the head of Cusop Dingle; flies freely in the afternoon. S. coniferana, Ratzb.; Stoke Wood, rather scarce. S. perlepidana, Haw. S. internana, Gn.; Woolhope, abundant among gorse. S. compositella, Fb. S. nitidana, Fb. S. flexana, Zell.; weirana, Dougl.; Woolhope and Doward, common. S. regiana, Zell. S. roseticolana, Zell. S. germarana, Hb.; Woolhope, common. S. pallifrontana, Zell.; Woolhope, very local, but not uncommon where the Astragalus glyciphyllus grows

Dicrorampha politana, Hb.; on railway banks. D. alpinana, Tr.; Woolhope, common, but local. D. petiverella, L. D. sequana, Hb. D. plumbana, Scop. D. saturnana, Gn. D. plumbagana, Tr. D. acuminatana, Zell. Extremely local, confined to a dry stony bank in the Woolhope district, where it abounds. D. simpliciana, Haw.; Pontrilas and Ross. D. consortana. Steph.

Pyrodes rheediella, Clerck

Catoptria albersana, Hb. C. ulicetana, Haw. C. juliana, Curt. C. hypericana, Hb. C. cana, Haw. C. fulvana, Steph.; Woolhope, moderately common. C. scopoliana, Haw. A. aspidiscana, Hb.; not uncommon in some of the Woolhope Woods; the larva burrows into the growing end of the golden rod, stunting its growth. C. aemulana, Schil.; confined to the Doward, where it is plentiful. C. expallidana, Haw.; Woolhope, common in tillage fields

Trycheris aurana, Fb.

Chorentes myllerana, Fb.; local but common where its food plant, Scutellaria galericulata, grows

Symaethis pariana, Clerck. S. oxyacanthella, L.; nearly as common as the preceding

Eupaecilia nana, Haw.; larva in the female catkins of birch in the autumn. E. dubitana, Hb.; the Doward, common. E. maculosana. Haw. E. hybridella, Hb. E. ambiguella, Hb.; Lynton Wood, scarce; among Rhamnus frangula. E. angustana, Hb.; Woolhope, local. E. curvistrigana, Wilk.; Woolhope, rare. E. alismana, Ragonot; common on an old canal, Stretton Grandison. E. notulana, Zell.; Woolhope, common in the damp parts of woods. E. rupicola, Curt.; confined to the Doward, though its food plant, the hemp agrimony, grows plentifully everywhere. E. subroseana, Haw.; very common in the Woolhope district among golden rod. E. ciliella, Hb.

Xanthosetia zaegana, L. X. hamana, L.

Lobesia reliquana, Hb.; the larva feeds on sloe and birch, and probably on other plants

Argyrolepia hartmanniana, Clerck. A. subbaumanniana, Wilk.; Woolhope, scarce. A. badiana, Hb. A. cnicana, Dbld. A. tessarana, Schiff.; confined to the mountain limestone of the Doward

Conchylis francillana, Fb.; Woolhope and the Doward Aphelia osseana, Scop.

Tortricodes hyemana, Hb.

#### TINEAE

Lemnatophila phryganella, Hb. Dasystoma salicella, Hb. Exapate congelatella, Clerck Diurnea fagella, Fb.

# TINEAE (continued)

Semioscopus avellanella, Hb.; Woolhope, rather scarce Epigraphia steinkellneriana, Schiff.

Talaeporia pseudo-bombycella, Hb.; Westhide and Dinmore, cases only

Solenobia inconspicuella, Stn.; Hereford and Tarrington. S. pomella

Psychoides verhuellella, Heyd; Woolhope

Diplodonia marginepunctella, Steph.; Woolhope, not uncommon

Xysmatodoma melanella, Haw.; Woolhope, common Ochsenheimeria birdella, Curt. O. bisontella, Zell. O. vaculella, Fisch.

Scardia corticella, Curt.; Woolhope, scarce. S. cloacella, Haw. S. arcella, Fb. S. parasitella, Hb.; Cusop Dingle. S. granella, L.; Woolhope, not common

Blabophanes ferruginella, Hb.; Doward, occasionally.
B. rusticella, Hb. B. spilotella; Woolhope, common in some of the woods, never taken indoors

Tinea tapetzella, L. T. albipunctella, Haw.; Woolhope and Doward, rather scarce. T. misella, Zell. T. pellionella, L. T. fuscipunctella, Haw. T. argentimaculella, Stn.; Woolhope, not uncommon in hollow rocky lanes. T. lapella, Hb. T. semifulvella Haw.

Phylloporia bistrigella, Haw.; Woolhope, common Tineola biselliella, Hml.

Lampronia quadripunctella, Fb.; Cusop Dingle, Woolhope, not common. L. luzella, Hb. L. praelatella, Schiff. L. rubiella, Bjerk.

Incurvaria muscalella, Fb. I. pectinea, Haw.; Doward, Woolhope, rather scarce. I. aehlmanniella, Hb.; scarce, Black Mountain (Chap-

man). I. capitella, Clerck.

Micropteryx calthella, L. M. seppella, Fb. M. mansuetella, Zell.; in wet or boggy places, abundant, but very local, Woolhope. M. aureatella, Scop.; allionella, Fb.; Haugh Wood and Nash Scarr, usually amongst bilberry. M. thunbergella, Fb. M. kaltenbachii, Stn.; first discovered in the county, has since been found in other parts. M. purpurella, Haw. M. sangii, Wood; first discovered in the county, has since been found elsewhere. M. semipurpurella, Steph. M. unimaculella, Zett. M. sparmanella, Bosc. M. subpurpurella, Haw.

Nemophora swammerdammella, L. N. schwartziella, Zell. N. pilella, Fb.; Black Mountain, fairly common, but will only move when the sun is shining; probably its most southerly English

locality. N. metaxella, Hb.

Adela fibulella, Fb. A. rufimitrella, Scop.; Woolhope, common. A. degeerella, L. A. viridella, L.

Nematois scabiosellus, Scop.; not uncommon at the *Doward*. N. cupriacellus, Hb.; *Woolhope*. N. minimellus, Zell.; in rough fields, *Woolhope* 

Swammerdammia combinella, Hb. S. caesiella, Hb. S. lutarea, Haw. S. oxyacanthella, Dup. S. pyrella, Vill. S. spiniella, Hb.

Scythropia erataegella, L.; Woolhope, common

Hyponomeuta plumbellus, Schiff.; Woolhope, common.
H. padellus, L. H. cagnagellus, Hb.; evonymella, Scp., Stn. H. evonymellus, L.; padi, Zell., Stn.; extremely local, in a small wood near Tram Inn: should also occur in the Black Mountain district, where its food plant, the bird-cherry, grows rather freely

TINEAE (continued)

Prays curtisellus, Don.

Eidophasia messingiella, Fisch.; Woolhope, scarce Plutella cruciferarum, Zell. P. porrectella, L.

Cerostoma sequella, Clerck. C. vittella, L. C. radiatella, Don. C. costella, Fb. C. sylvella, L.; Leominster (Hutchinson), Moccas, Woolhope. C. alpella, Schiff.; Woolhope, scarce. C. lucella, Fb.; Woolhope, rare. C. asperella, L.; Leominster. Of this very rare and beautiful insect, eighteen examples have been taken at different times by Mrs. Hutchinson and her family, usually in the autumn, but more than once in the spring after hibernation. Taken for the first time at Glanvilles Wootton, in Dorset, in 1831, it had not been again met with anywhere in this county till its rediscovery at Leominster in 1865. A large empty cocoon of a crostoma, almost certainly belonging to this species, was once found at Tarrington by the present writer, attached to an apple leaf, so that the insect has probably a wide footing in the

Harpipteryx nemorella, L.; Haugh Wood, rare. H.

xylostella, L.

Theristis mucronella, Scop.; Woolhope, scarce Orthotelia sparganella, Thnb.; Woolhope, local but

common Phibalocera quercana, Fb.

Depressaria costosa, Haw. D. flavella, Hb.; liturella, Tr. D. umbellana, Steph.; Woolhope, rare. D. assimilella, Tr. D. nanatella, Stn.; Woolhope, common on dry banks. D. scopariella, Hein.; Woolhope, not so common as the next. D. atomella, Hb. D. arenella, Schiff. D. subpropinquella, Stn. D. alstroemeriana, Clerck. D. purpurea, Haw. D. liturella, Hb. D. conterminella, Zell. D. angelicella, Hb. D. carduella, Hb.; Woolhope, bred from burdock. D. ocellana, Fb. D. yeatiana, Fb. D. applana, D. ciliella, Stn. D. pimpinella, Zell.; Fb. rare in Woolhope district, more common in that of Black Mountain. D. albipunctella, Hb. pulcherrimella, Stn. D. chaerophylli, Zell. D. ultimella, Stn. D. nervosa, Haw. D. badiella Hb.; Woolhope, common in poor pastures. D. heracleana, De Geer

Psoricoptera gibbosella, Zell.; Woolhope, rather

scarce

Gelechia nigra, Haw.; Stoke Wood, on trunks of poplar. G. lentiginosella, Zell.; Woolhope, common. G. ericetella, Hb. G. mulinella, Zell. G. sororculella, Hb.; the Leech Pool at Clifford, common; Woolhope. G. longicornis, Curt.; Black Mountain. G. diffinis, Haw.; Leominster (Hutchinson), plentiful also on Herefordshire Beacon. G. rhombella, Schiff. G. scalella, Scop.; aleella, Fb.; Haugh Wood, common, Ashperton Park

Brachmia mouffetella, Schiff.

Bryotropha terrella, Hb. B. politella, Dougl.; common on the *Black Mountain*. B. senectella, *Woolbope*, common. B. similis, Dougl. B. affinis, Dougl. B. domestica, Haw.

Lita acuminatella, Sircom. L. artemisiella, Tr. L. maculiferella, Dougl.; Leominster (Hutchinson). L. junctella, Dougl.; Woolhope, not rare; sometimes in the spring after hibernation

TINEAE (continued)

Teleia proximella, Hb. T. notatella, Hb. T. humeralis, Zell.; Woolhope, common and very variable. T. vulgella, Hb. T. luculella, Hb. T. scriptella, Hb.; Woolhope, rather scarce. T. fugitivella, Zell. T. sequax, Haw.; Woolhope, common. T. dodecella, L. T. triparella, Zell.

Recurvaria leucatella, Clerck

Poecilia nivea, Haw.; gemmella, Stn.; Woolhope, rather uncommon, once bred from a larva mining in the tip of an oak shoot. P. albiceps, Zell.; Woolhope, scarce

Nannodia stipella, Hb. v. naeviferella, Dup.

Apodia bifractella, Mann.

Ptocheuusa osseella, Stn.; Woolhope, Castle Frome, not rare; easily mistaken on the wing for a Coleophora. P. subocellea, Steph.

Doryphora lutulentella, Zell.; Woolhope, rare, taken

only twice

Monochroa tenebrella, Hb.; Hereford (Chapman). M. unicolorella, Dup.; Woolhope, common

Lamprotes atrella, Haw.; Woolhope, common

Anacampsis vorticella, Scop.; Woolhope, scarce. A. taeniolella, Tr. A. anthyllidella, Hb. Acanthophila alacella, Dup.; Woolhope, not uncom-

Acanthophila alacella, Dup.; Woolhope, not uncommon; at rest by day on the trunks of appletrees, and flying in the evening along the hedges

Tachyptilia populella, Clerck

Brachycrossata cinerella, Clerck

Ceratophora rufescens, Haw. Chelaria hübnerella, Don.

Anarsia genistae, Stn.

Hypsilophus schmidiellus, Heyd.; durdhamellus, Stn.; Doward and Woolhope

Aplota palpella, Haw.; the locality for this great rarity is Withington. Here the larva may be found not uncommonly on the old sandstone walls, living in galleries on the common moss, Homalothecium sericeum; the perfect insect has also been taken once in the Woolhope district

Sophronia parenthesella, L.

Pleurota bicostella, Clerck; Black Mountain

Harpella geoffrella, L.

Dasycera sulphurella, Fb.

Oecophora minutella, L. Oe. flaviguttella, Zell.
Oe. tripuncta, Haw. Oe. lunaris, Haw.; Woolhope. Oe. tinctella, Hb.; Leominster (Hutchinson), Woolhope. Oe. unitella, Hb.; Leominster (Hutchinson), Woolhope, scarce in both districts. Oe. flavifrontella, Hb.; Woolhope, common. Oe. fuscescens, Haw. Oe. pseudospretella, Stn.

Endrosis fenestrella, Scop.

Butalis grandipennis, Haw.; Woolhope, formerly common, but not noticed, since its food plant was largely destroyed by the great frost of 1891.

B. laminella, H.-S.; Woolhope, common. B. senescens, Stn.; Woolhope, moderately common

Pancalia latreillella, Curt.; Woolhope, scarce. P. lewenhoekella, L.

Acrolepia perlepidella, Stn.; the *Doward*, once. A. granitella, Tr. A. pygmaeana, Haw.; Woolhope, common

Röslerstammia erxlebenella, Fb.; Woolhope, in woods amongst small-leaved lime

#### TINEAE (continued)

Glyphipteryx fuscoviridella, Haw. G. thrasonella, Scop. G. equitella, Scop. ; Leominster (Hutchinson), Ledbury. G. forsterella, Fb.; oculatella, Zell. : Woolhope, local but common. G. fischeriella, Zell.

Aechmia dentella, Zell.; Ledbury and Stretton Grandison, common

Perittia obscuripunctella, Stn.

Tinagma sericiellum, Haw. T. betulae, Stn.; discovered first at Woolhope, now known to occur in other parts of the kingdom. T. resplen-

dellum, Dougl.

Argyresthia ephippella, Fb. A. nitidella, Fb. A. semitestacella, Curt. A. spiniella, Zell.; Nash Scarr; larva on mountain ash. A. albistria, Haw. A. conjugella, Zell.; Haugh Wood and Black Mountain. A. semifusca, Haw. A. mendica, Haw. A. glaucinella, Zell.; Woolhope, common. A. retinella, Zell. A. dilectella, Zell.; Westhope Hill. A. curvella, L. A. sorbiella, Tr.; Black Mountain. A. pygmaeella, Hb. A. gaedartella, L. A. brochella, Hb. A. arceuthina, Zell.; Westhope Hill, abundant. A. aurulentella, Zell.; Westhope Hill, scarce

Cedestis farinatella, Dup. Ocnerostoma piniariella, Zell. Zelleria hepariella, Mann.

G. stigmatella, Fb. Gracilaria alchimiella, Scop. G. falconipennella, Hb. Of this great rarity it may be said, not rare in Cusop Dingle; on one occasion as many as a dozen of its cocoons were found under the alder leaves. G. semifascia, Haw.; Woolhope. G. populetorum, Zell.; common in some of the Woolhope Woods; larva always on birch. G. elongella, L. G. tringipennella, Zell. G. syringella, Fb. G. auroguttella, Steph. G. ononidis, Zell.; Woolhope, occasionally in rough fields

Coriscium brogniartellum, Fb. C. cuculipennellum,

Ornix avellanella, Stn. O. fagivora, Stn.; the Doward; some years abundant. O. anglicella, Stn. O. betulae, Stn. O. scutulatella, Stn.; Woolhope, twice met with; a larva, making a cone-shaped habitation quite different to the flat ones of the other two birch-feeding species, probably belongs here, but the few found have not been reared. O. torquillella, Stn. scoticella, Stn. O. loganella, Stn.; Woolhope, common; the larvae are usually in small colonies and prefer seedling plants or the lower branches of birch bushes, whilst those of betulae choose the upper branches and are solitary. O. guttea, Haw.

Coleophora fabriciella, Vill. C. deauratella, Lien.; Woolhope, not scarce. C. fuscocuprella, H.-S.; Woolhope, common. C. alcyonipennella, Kol. C. paripennella, Zell. C. wockeella, Zell.; Haugh Wood, scarce. C. lixella, Zell. C. vibicella, Hb.; Woolhope, common. C. albi-costa, Haw. C. anatipennella, Hb. C. palliatella, Zinck. C. ibipennella, Heyd. C. ardeaepennella, Scott; *Hereford* (Chapman); *Woolhope*; scarce. C. currucipennella, Fisch. C. niveicostella, Fisch.; Woolhope, common. C. discordella, Zell. C. genistae, Stn.; Tram

#### TINEAE (continued)

Inn, very common. C. bilineatella, Woolhope, among Genista tinctoria, rather scarce. conyzae, Zell.; Woolhope, in a single spot. C. troglodytella, Dup.; Doward. C. inulae, Wk.; confined to a single sheltered spot, a few feet square, in the Woolhope district, where it has continued to exist since 1890. About forty years ago a few cases were discovered by Mr. Machin at Leith Hill in Surrey, but the insect was never met with there again, and the Woolhope locality is now its only known habitat in these islands. The larva takes two years to feed up, and the moth only appears in alternate seasons. C. pyrrulipennella, Tisch.; Wapley Hill. C. lineola, Haw. C. murinipennella, Fisch. C. alticolella, Zell. C. sylvaticella, Wood; a new species, discovered among Luzula sylvatica in Haugh Wood, and bred from the plant, the larva taking two years to feed up. C. glaucicolella, Wood. Also discovered and named from Herefordshire moths. C. agrammella, Wood. Another new species discovered in the county. C. laripennella, Zett. C. apicella, Stn.; Woolkope, common in damp places. C. argentula, Zell. C. virgaurea, Stn. C. juncicolella, Stn. C. laricella, Hb. C. albitarsella, Zell. C. nigricella, Steph. C. fuscedinella, Zell. C. gryphipennella, Bouché. C. siccifolia, Stn.; Woolhope, rather scarce. C. viminetella, Heyd. C. olivacella, Stn. C. lutipennella, Zell. C. badiipennella, Fisch.; Woolhope, rather common, flying in woods at dusk. C. limosipennella, Fisch. C. wilkinsoni, Scott

Bedelia somnulentella, Zell.

Cosmopteryx orichalcea, Stn.; Haugh Wood, common Batrachedra praeangusta, Haw. B. pinicolella, Dup.

Chauliodus illegerellus, Hb.; Ledbury, scarce.

chaerophyllellus, Göze

Laverna propinquella, Stn. L. lacteella, Steph. raschkiella, Tisch.; Doward and Lynton Wood. L. epilobiella, Schr. L. ochraceella, Curt.; Woolhope, scarce. L. phragmitella, Bent.; Woolhope. L. decorella, Steph. L. subbistrigella, Haw. L. vinolentella, H.-S. hellerella, Dup.

Anybia langiella, Hb. Woolhope, common Asychna modestella, Dup. A. terminella, Dale; Shobdon Marsh, Woolhope

Chrysoclista schrankella, Hb. The Golden Well at Dorstone. C. flavicaput, Haw.

Antispila pfeifferella, Hb. A. treitschkiella, Fisch.; Doward and Ledbury

Stephensia brunnichella, L.

Elachista gleichenella, Fb. E. magnificella, Tgstr. E. albifrontella, Hb. E. atricomella, Stn. E. luticomella, Zell. E. kilmunella, Stn.; Black Mountain. E. monticola, Wk.; Ledbury, Woolhope. E. cinereopunctella, Haw. E. trapeziella. H.-S.; Woolhope, common. E. stabilella, Stn.; Ledbury, Woolhope, scarce. E. nigrella, Hb.; Woolhope, rare. E. subnigrella, Dougl; Woolhope, scarce. E. obscurella, Stn. E. zona-riella, Tgstr. E. gangabella, Fisch.; scarce, Woolhope. E. taeniatella, Stn. E. adscitella, Stn.; common, Woolhope and Doward.

TINEAE (continued)

rhynchosporella, Stn.; Black Mountain. E. biatomella, Stn. E. triatomea, Haw. E. dispunctella, Dup.; Doward, scarce. E. pollinariella, Zell. E. rufocinerea, Haw. E. subalbidella, Schl.; ochreella, Stn.; Lynton Wood, scarce. E. argentella, Clerck; cygnipennella, Hb.

Tischeria complanella, Hb. T. dodonaea, Heyd.; Woolhope, not uncommon. T. marginea, Haw.

T. angusticolella, Heyd.

Lithocolletis roboris, Zell. L. lantanella, Schr.; Haugh Wood, scarce. L. bremiella, Zell.; Woolhope, common. L. lautella, Zell. vaeciniella, Scott; Black Mountain, not un-common. L. cavella, Zell.; Woolhope, common. L. concomitella, Bks.; pomifoliella, Zell. L. pyrivorella, Bks. L. blancardella, Fb. L. oxyacanthae, Frey. L. sorbi, Frey; Nash Scarr, common. L. spinicolella, Kol. L. cerasicolella, H.-S. L. coryli, Nicelli. L. faginella, Mann. L. torminella, Frey. salicicolella, Sircom. L. ulmifoliella, Hb. L. spinolella, Dup. L. distentella, Frey; very local, but not uncommon in some of the Wool-hope Woods. The peculiar mines have been noticed by the present writer at Wyre Forest in Worcestershire, and these seem to be the only known localities for it in the country. L. quercifoliella, Fisch. L. messaniella, Zell. L. corylifoliella, Haw. L. viminiella, Sircom. alnifoliella, Hb. L. heergeriella, Zell. L. cramerella, Fb. L. sylvella, Haw. L. emberizaepennella, Bouché. L. dunningiella, Stn. L. nicellii, Zell. L. stettinensis, Nicelli. L. kleemannella, Fb.; Woolhope, common. L. schreberella, Fb. L. tristrigella, Haw. L. tri-fasciella, Haw. L. comparella, Fisch. Not uncommon, Woolhope

Lyonetia clerckella, L.

Phyllocnistis suffusella, Zell. P. saligna, Zell.

Cemiostoma spartifoliella, Hb. C. laburnella, Heyd. C. scitella, Zell. C. wailesella, Stn.; Woolhope common

Opostega crepusculella, Fisch.

Bucculatrix aurimaculella, Stn. B. cidarella, Tisch. B. ulmella, Mann. B. crataegi, Zell. B. demaryella, Dup.; Woolhope, common; larva on nut as well as birch. B. boyerella, Dup.; Ledbury, scarce. B. frangulella, Göze; the Doward, very local. B. cristatella, Fisch. B. thoracella, Thub.; hippocastanella, Dup.; Wool-

TINEAE (continued)

bope, in woods where the small-leaved lime is plentiful

Nepticula atricapitella, Haw. N. ruficapitella, Haw. N. tiliae, Frey. N. basiguttella, Hein. N. anomalella, Göze. N. pygmaeella, Haw. N. pomella, Vaughan. N. oxyacanthella, Stn. N. minusculella, H.-S. N. pyri, Glitz.; moderately common in pear orchards; appropriate of the state parently confined, so far as this country is concerned, to Herefordshire. N. ancupariae, Frey. N. viscerella, Dougl. N. catharticella, Stn. N. septembrella, Stn. N. desperatella, Frey; the first British specimens were taken at Haugh Wood; since then found freely in North of England; mines gregarious on wild apple bushes, close to the ground. N. cryptella, Stn.; Haugh Wood, rare. N. weaveri, Dougl.; Black Mountain, probably its most southerly English locality. N. intimella, Zell. N. subbimacu-lella, Haw. N. apicella, Stn. N. trimaculella, Haw. N. assimilella, Zell.; Haugh Wood, rare elsewhere. N. floslactella, Haw. N. salicis, Stn. N. diversa, Glitz; Woolhope, rare. N. myrtillella, Edl.; Haugh Wood and Black Mountain. N. microtheriella, Wing. N. betulicola, Steph. N. distinguenda, Hein. N. ignobilella, Stn. N. argentipedella, Zell. N. woolhopiella, Stn.; not uncommon some years at Haugh Wood, where it was first discovered. N. plagicolella, Stn. N. prunetorum, Stn. N. tityrella, Dougl. N. fulgens, Stn. N. malella, Stn. N. angulifasciella, Stn. N. atricollis, Stn. N. arcuatella, H.-S. N. gratiosella, Stn. N. ulmivora, Hein. N. marginicolella, Stn. N. alnetella, Stn. N. glutinosae, Stn. N. continuella, Stn. N. confusella, Wood; discovered from Woolkata specimens. covered and named from Woolhope specimens; widely distributed in the woods, but not common. N. aeneofasciallia, H.-S. N. aurella, Fb. N. gei, Frey. N. dulcella, Hein. N. luteella, Stn. N. sorbi, Stn.; Nash Scarr, common. N. lapponica, Wk. N. torminalis, Wood. Another new species that the county has furnished. Although the food plant (wild service) is of universal occurrence in the Woolhope Woods, the moth itself is found only in Stoke Wood. N. regiella, H.-S.

Bohemannia quadrimaculella, Boheman; Woolhope, scarce

Trifurcula immundella, Zell. T. pallidella, Zell.; Woolhope, rather scarce. T. pulverosella, Stn.

## DIPTERA

Flies

A dozen years ago nothing was known of the Diptera of the county. But about that time Colonel Yerbury visited Herefordshire and laid the foundation of our local acquaintance with the order. Since then he has repeated his visit on more than one occasion, making his head quarters either at Ledbury or Tarrington. Mr. Wainwright also has collected for brief periods at Westhide and the Malverns, his most remarkable capture being an example of *Malbta cimbiciformis* at Westhide in July, 1899. Besides these two and the present compiler, no one else seems to have touched these interesting insects. Several large groups among the Orthorrhapha, such as the Cecidomyids, Mycetomyids, &c., have been omitted altogether, the present material being too scanty to be worth

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recording. But from the Tipulids onwards the various families, with one or two exceptions, have been sufficiently worked to afford a good idea of the extent to which they are represented here. Among the 1,344 species enumerated are a good many whose names are not to be found in Mr. Verrall's list; but it has not been thought necessary to draw special attention to them, because whilst some are important introductions—that is to say, apparently confined at present to their place of discovery (Herefordshire)—others are well known to occur elsewhere, and are only awaiting official recognition. At the same time many species in nearly all the families have had to be passed over on account of the uncertainty attending their identification, owing in some cases to their being without doubt undescribed forms. The Leominster district in the centre and the north-east of the county has been quite neglected. On the other hand the localities whose names recur over and over again in the following list are dotted pretty evenly over the remaining portions. 'Woolhope' is commonly used in a general sense to include a large area on the Silurian limestones of alternating hill and valley, containing many large woods and much rough ground; whilst Haugh Wood, Mains Wood, Coldborough Park, and Stoke Wood are favourite localities within it. Tram Inn lies half a dozen miles to the south of Hereford, and consists of rough unreclaimed pastures very wet in places, in which snipe still breed annually, and with a flora as interesting as the fauna. Scattered about are certain shallow circular depressions, under water in the winter, but drying up in the course of the summer. These curious places are the special habitats of various good Sciomyzids. Shobdon Marsh, with its boggy wood, and Moseley Mere lie in the north-west near the quaint little village of Pembridge. The Leech Pool, almost under the shadow of the old ruined castle of the lords of Clifford, is a natural piece of water (probably part of an ancient bed of the Wye) close to the Welsh border. Almost choked with water plants of all sorts, and with a sallow carr in the middle, it is the special locality for certain species that are not known to occur elsewhere in the county. Depending for its water upon surface drainage, it all but dries up during a prolonged drought, and in this condition is more easily worked and more productive. Cusop Dingle, a most fascinating place, is a deep valley some four miles long among the foot-hills to the north-east of the Black Mountain. In the lower half its little stream forms the divide between England and Wales, but in the upper and more interesting portion both sides are wholly in Herefordshire. It is well wooded, the trees being of many kinds, and above the tree line are the bare and stony hill-sides which run up to 1,100 ft. and 1,400 ft. The Doward is on the banks of the Wye at the southern extremity of the county. Considering its richness in the Lepidoptera, it is rather disappointing as regards Diptera. Probably the Mountain limestone is too dry a formation for these insects. Monnow localities refer to that portion of the river between Pandy and Pontrilas, where it comes into the plain at the southern end of the Black Mountain. Here it generally forms the boundary between Herefordshire and Monmouthshire, though sometimes it is wholly in one county, and sometimes in the other. It is a broad shallow stream, with a pebbly bottom, extensive shingle beds, and two or three nice swampy bits. Its banks are sandy, and in them the burrowing wasp, Odynerus spinipes, makes its curious nests in numbers.

#### ORTHORRHAPHA

Dilophus febrilis, L. D. albipennis, Mg. Bibio pomonae, F. B. marci, L. B. leucopterus, Mg. B. hortulanus, L. B. ferruginatus, Gmel. B. venosus, Mg. B. reticulatus, Lw.; Woolhope, not rare. B. nigriventris, Hal. B. varipes, Mg. B. johannis, L. B. lepidus, Lw.; Woolhope, scarce. B. clavipes, Mg.; much commoner than the preceding

Dixia maculata, Mg. D. nebulosa, Mg. D. aesti-

valis, Mg.

Ptychoptera contaminata, L. P. paludosa, Mg. P. lacustris, Mg. P. albimana, F. P. scutellaris, Mg.; very local, confined to the wet ditches of the Golden Well, Dorstone

Limnobia bifasciata, Schrk. L. quadrinotata, Mg. L. nubeculosa, Mg. L. flavipes, F. L. nigro-punctata, Schum. L. decemmaculata, Leow.; Stoke Wood; several of both sexes taken September, 1906, from an old beech much infested with fungus. L. trivittata, Schum. L. macrostigma, Schum.

Dicranomyia pillipennis, Egg.; once; Bodenham, 29 July, 1897. D. modesta, Mg. D. mitis,

## ORTHORRHAPHA (continued)

Mg. D. lutea, Mg. D. chorea, Mg. D. sericata, Mg.; scarce, Haugh Wood and Doward. D. stigmatica, Mg. D. didyma, Mg. D. dumetorum, Mg. D. ornata, Mg.; extremely local, Cusop Dingle, among butter-bur (Petasites vulgaris). D. morio, F.

Rhipidia maculata, Mg. Rhamphidia longirostris, Mg.

Antocha opalizans, O .- Sack; once Westhide, I September, 1900

Empeda flava, Schum. E. nubila, Schum.

Goniomyia tenella, Mg. G. jucunda, Lw.; 19 banks of the Monnow between Pandy and Pontrilas; identical with the Wyre Forest insect, but whether true jucunda Mr. Verrall is now doubtful. G. schistacea, Schum.; I & Cusop Dingle, 29 June, 1899. G. lateralis, Meg. G. scutellata, Egg.; very common in the bogs of Haugh Wood. G. abbreviata, Lw.; 12, Tarrington, 3 September, 1899; referred rather doubtfully by Mr. Verrall to this species

Acyphona maculata, Mg.

#### ORTHORRHAPHA (continued)

Molophilus ochraceus, Mg. M. appendiculatus, Staeg. M. propinquus, Egg. M. bifilatus,
Verr. M. murinus, Mg. M. ater, Mg.
Rhypholophus lineatus, Mg.; not common. R.
nodulosus, Meg. R. varius, Mg. R. haemor-

rhoidalis, Ztt.

Erioptera flavescens, Mg. E. macrophthalma, Lw. E. taenionota, Mg. E. fuscipennis, Mg. E. trivialis, Mg.

Symplecta punctipennis, Mg.

Trimicra pilipes, F. Lipsothrix errans, Wlk.

Ephelia miliaria, Egg.; Black Mountain. E. apicata, Lw. 19, Bredwardine, 29 May, 1899. E. submarmorata, Verr. E. marmorata, Mg.

Dactylolabis Frauenfeldi, Egg.; stony places on sides of Black Mountain. D. gracilipes, Lw.; Black Mountain district

Poecelostola punctata, Schrk.

Epiphragma picta, F.

Limnophila Meigenii, Verr. L. dispar, Mg. lineola, Mg. L. lineolella, Verr. L. ferruginea, Mg. L. bicolor, Mg. 1 \( \text{P} \) Black Mountain, 12 June, 1900. L. discicollis, Mg. L. lucorum, Mg. L. sepium, Verr. L. nemoralis, Mg. L. filata, Wlk.

Adelphomyia senilis, Hal.

Trichocera annulata, Mg. T. hiemalis, Deg.; several other forms occur, but their identification is uncertain

Anisomera Burmeisteri, Lw.; 1 & on the banks of the

Wye under Clifford's Castle, 7 June, 1900 Cladiura, sp.; 1 & Cusop Dingle, 7 September, 1898. C. sp. 1 \( \text{Susop Dingle}, 5 \) July, 1902

Ula pilosa, Schum.

Dicranota pavida, Hal. D. bimaculata, Schum. D. sp.; allied to bimaculata, but larger and with much longer antennae, as long as head and thorax together; frequent

Amalopis immaculata, Mg. A. unicolor, Schum.; summit of Black Mountain. A. clavipennis, Verr. A. occulta, Mg.; Black Mountain, frequent; the males sometimes dance together in the afternoon sunshine. A. straminea, Mg.; not uncommon on the Black Mountain and its foot-hills, confined in the lowlands to one of the bogs in Haugh Wood. A. littoralis, Mg.

Pedicia rivosa, L.

Cylindrotoma distinctissima, Mg.; not scarce Liogma glabrata, Mg.; Stoke Wood, scarce

Dolichopeza sylvicola, Curt.; Black Mountain district Pachyrrhina histrio, F. P. maculosa, Mg. P. cornicina, L. P. guestfalica, Westh. P. quadri-

faria, Mg. P. annulicornis, Mg.
Tipula nigra, L. T. pagana, Mg. T. obsoleta, Mg.;

\*\*Black Mountain\*\*, scarce. T. signata, Stag.;

\*\*Cusop Dingle.\*\* T. confusa, V. d. Wulp.

Tipula marmorata, Mg.; Stoke Wood and Black Mountain. T. longicornis, Schum. T. truncorum, Mg. T. pabulina, Mg. T. hortulana, Mg.; Woolhope district, not uncommon. T. varipennis, Mg. T. scripta, Mg. T. melanoceras, Schum.; abundant on Black Mountain. T. plumbea, F.; Black Mountain. T. luteipennis, Mg.; in old reedy pools, female scarce. T. flavolineata, Mg.; widely distributed, once bred along with Xiphura atrata from a decayed

# ORTHORRHAPHA (continued)

sallow stump. The behaviour of the two was very different; the pupa of the Tipula scarcely ever moved, whilst those (there were four or five) of the Xiphura were very restless and kept on wriggling round and round the pot in which they were confined. T. lunata, L. T. Diana, Mg.; reedy pools, Leech Pool; Swan Pool, Shobdon. T. lateralis, Mg. T. vernalis, Mg. T. vittata, Mg.; Woolhope, Cusop Dingle; not scarce. T. gigantea, Schrk. T. lutescens, F. T. oleracea, L. T. paludosa, Mg. T. fascipennis, Mg.; not uncommon. T. peliostigma, Schum. T. ochracea, Mg.

Dictenidia bimaculata, L.; Tarrington, taken only

Xiphura atrata, L.; Cusop Dingle, not rare

Ctenophora pectinicornis, L.; widely distributed, but scarce

Rhyphus fenestralis, Scop. R. punctatus, F. Pachygaster atra, Pz. P. leachii, Curt.; much the commoner of the two

Nemotelus pantherinus, L. N. nigrinus, Fln.; generally distributed, but not so common as the preceding species

Oxycera analis, Mg.; Ledbury, Woolhope, occasionally. O. pygmaea, Fln.; the Doward, Pembridge, in wet boggy ground O. formosa, Mg.; Woolhope, Ledbury, &c., common. O. tenuicornis, Meg.; Woolhope and Shobdon scarce, more common on the Monnow. O. morrisii, Curt.; Pembridge once (Yerbury), 15 July, 1902. O. terminata, Mg.; Tarrington, Stoke Wood, Pontrilas; frequents pebbly rills and clear streams. O. pardalina, Mg.; Doward, Tarrington, Shobdon, &c., usually in similar places to the last. O. pulchella, Mg. O. trilineata, F.

Stratiomys potamida, Mg.

Odontomyia tigrina, F. O. viridula, F.

Chrysonotus bipunctatus, Scop.

Sargus flavipes, Mg.; common. S. rufipes, Whlbg.; a few of both sexes. S. cuprarius, L.; scarce. S. iridatus, Scop. S. nitidus, Mg.; Tram Inn, a male, 15 July, 1903; Mr. Verrall has taken his description of the species for his work on the British flies from this specimen

Chloromyia formosa, Scop.

Microchrysa polita, L. M. flavicornis, Mg. cyaneiventris, Ztt.

Beris clavipes, L. B. vallata, Forst. B. chalybeata, Forst. B. fuscipes, Mg.; Cusop, Woolhope. B. morrisii, Dale; Moccas (Yerbury), Cusop, Woolhope Chorisops tibialis, Mg.

Haematopota pluvialis, L. H. crassicornis, Whlbg.; Tram Inn (Yerbury), Cusop Dingle; not common

Therioplectes montanus, Mg.; Leech Pool. T. tropicus, Mg., var. bisignatus, Iaen. T. solstitialis, Mg.; Woolhope

Tabanus bovinus, L.; scarce, Woolhope. T. bromius, L. T. maculicornis, Ztt. T. cordiger, W.; the Doward and Woolhope

Chrysops caecutiens, L.

Leptis scolopacea, L.; a small form half the size of the normal is common at Shobdon Marsh. L. notata, Mg. L. tringaria, L. L. conspicua, Mg.; Woolhope and Black Mountain. L. annulata, Degeer; the Doward, one female, 3 June, 1903; apparently unique as a British insect

## ORTHORRHAPHA (continued)

Chrysopilus aureus, Mg. C. auratus, F.

Atheryx marginata, F.; Pontrilas. A. ibis, F.; generally distributed, but usually singly

Ptiolina wodzickii, Frfld.; Stoke Wood, &, 14 June, 1898; 2 99 12 June, 1899, 22 June, 1901 Symphoromyia crassicornis, Pz.; Black Mountain

Spania nigra, Mg.

Xylophagus ater, F.; Cusop Dingle

Leptogaster cylindrica, Deg. L. guttiventris, Ztt.; the Doward, once, 6 July, 1899

Dioetria oelandica, L.; Woolhope, Cusop Dingle. D. reinhardi, W. D. atricapilla, Mg.; Tarrington. D. rufipes, Deg. D. linearis, F.

Isopogon brevirostris, Mg.; Cusop Dingle, once,

4 July, 1903

Laphria marginata, L.; Woolhope, Ledbury, Doward Epitriptus cingulatus, F.; Woolhope

Neoitamus cyanurus, Lw.

Dysmachus trigonus, Mg.; Woolhope, Tram Inn, Pontrilas, &c.

Thereva nobilitata, F. T. plebeia, L.; Tarrington, scarce

Psilocephala ardea, F.; Pontrilas, on banks of the Monnow; 299 20 June, 1906, 3 July, 1906 Scenopinus fenestralis, L. S. niger, Deg.; not rare indoors, Tarrington, Stretton Grandison

Oncodes gibbosus, L.; Dorstone, Tram Inn, Woolhope Acrocera globosus, Pz.; Tram Inn, Woolhope

Bombylius discolor, Mik. B. major, L. B. canescens, Mik. Neither so common nor so generally distributed as the other two; Woolhope, Doward, Pontrilas

Hybos grossipes, L. H. femoratus, Müll. H. fumipennis, Mg.; Stoke Wood, not scarce

Cyrtoma nigra, Mg. C. spuria, Fln.

Rhamphomyia nigripes, F. R. sulcata, Fln. R. spinipes, Fln.; not uncommon in late autumn, Stoke Wood, Ashperton Park, Wapley Hill. R. dentipes, Ztt.; common in May and June, Woolhope district. R. gibba, Fln. R. variabilis, Fln. R. sciarina, Fln. R. umbripennis, Mg. R. flava, Fln.; Black Mountain (Yerbury), Woolhope. R. plumifera, Ztt.; Stoke Wood, several, 26 May, 1906

Empis tessellata, F. E. livida, L. E. stercorea, L. E. trigramma, Mg. E. lutea, Mg. E. scutellata, Curt.; Stoke Edith (Yerbury). nigritarsis, Mg. E. pennipes, L. E. pennaria, Fln. E. vernalis, Mg. E. albinervis, Mg. E. caudatula, Lw.; Ross (Yerbury). E. chioptera, Fln. E. grisea, Fln., var. nodosa, Beling.; both type and variety common in Woolhope

district

Pachymeria femorata, F.

Hilara flava, Schiner; Woolhope district, common. H. mauva, F. H. pinetorum, Ztt. H. fuscipes, F.; banks of Monnow, near Pontrilas, 20 June, 1906. H. quadrivittata, Mg. H. litorea, Fln.; Cusop Dingle (Yerbury). H. lurida, Fln.; Stoke Wood, 26 June, 1906. H. chorica, Fln.; banks of Monnow, near Pontrilas, common, 20 June, 1906. H. nigrina, Fln.

Oreogeton flavipes, Mg.; banks of the Monnow, com-

mon, 3 July, 1906

Trichina clavipes, Mg.; Tarrington (Yerbury) Microphorus anomalus, Mg.; Stoke Wood and Cusop Dingle

## ORTHORRHAPHA (continued)

Oedalea flavipes, Ztt. Oe. stigmatella, Ztt.

Ocydromia glabricula, Fln.

Leptopeza flavipes, Mg. L. ruficollis, Mg.; Tarring-ton (Yerbury). L. sphenoptera, Lw.; Stoke Wood, once, 18 July, 1905, referred to this species by Verrall

Heleodromia stagnalis, Hal.

Wiedemannia bistigma, Curt.; R. Monnow, 27 Sept.

1901 (Yerbury)

Hemerodromia precatoria, Fln. H. melanocephala, Hal.; Tarrington (Yerbury). H. stigmatica, Schiner; Woolhope, && 19 August, 1903, 19 Sept. 1905

Ardoptera irrorata, Fln. A. exoleta, Hal.

Trichopeza longicornis, Mg.; not uncommon

Thamnodromia albiseta, Ztt. Sciodromia immaculata, Hal.

Drapetis assimilis, Fln. D. exilis, Mg.; Tarrington, 15 August, 1902 (Yerbury)
Tachista connexa, Mg. T. annulimana, Mg.

Tachypeza nubila, Mg.; Tarrington, Wapley Hill

(Yerbury)

Tachydromia lutea, Fln. T. pectoralis, Fln. compta, Wlk. T. pallipes, Fln. T. minuta, Mg. T. major, Zett.; Stoke Wood, 1 & 14 June, 1902. T. cothurnata, Mcq. T. cursitans, F. T. candicans, Fln.; Tarrington (Yerbury). T. flavipes, F.; Tarrington and Ross (Yerbury). T. pallidiventris, Mg. T. flavipalpis, Mg.; Stoke Wood, & 24 June, 1902, 2 ♀♀ 31 August, 1903, 21 Sept. 1905. T. femoralis, Ztt.; Stoke Wood, not uncommon

Psilopus platypterus, F. Neurigone pallida, Fln.; occasionally, Moccas (Yerbury), Shobdon Marsh, Coldborough Park, and

Stoke Wood, usually in early summer

Eutarsus aulicus, Mg.

Dolichopus picipes, Mg. D. campestris, Mg. D. planitarsis, Fln.; *Tram Inn* (Yerbury). D. plumipes, Scop. D. wahlbergi, Ztt.; woods in Woolhope district. D. pennatus, Mg. D. popularis, Wied. D. nitidus, Fln.; Clifford's Castle (Yerbury). D. trivialis, Hal. D. festivus, Hal. D. arbustorum, Stann.; woods in Woolhope district, common. D. griseipennis, Stann. D. longicornis, Stann.; Clifford's Castle, common. D. latilimbatus, Macq.; Tram Inn (Yerbury). D. ungulatus, L. D. longitarsis, Stann.: Pembridge, a male, 15 July, 1902. D. brevipennis, Mg.; Tarrington and Ross

Poecilobothrus nobilitatus, L.

Hercostomus chaerophylli, Mg. H. nigriplantis, Stann.; Haugh Wood, a male, 6 August, 1906. H. atrovirens, Lw.; Stoke Wood, a male, 18 June, 1906. H. parvilamellatus, Mcq.; Stoke Wood and Westhide, in June and July, not common. H. nanus, Mcq.

Hypophyllus obscurellus, Fln. H. crinipes, Stag.; Stoke Wood, one male, 18 June, 1906

Gymnoternus metallicus, Stann.; Tram Inn (Y.). G. assimilis, Staeg.; R. Monnow. G. aerosus,

Chrysotus cilipes, Mg.; Stoke Wood. C. pulchellus, Kow.; Tram Inn (Yerbury), 23 July, 1902. C. blepharosceles, Kow.; Ledbury (Y.). C. cupreus, Meq. C. laesus, Wied.; distributed. C. gramineus, Fln.

#### ORTHORRHAPHA (continued)

Diaphorus oculatus, Fln. D. hoffmanseggii, Mg.; the Monnow, one male, 3 July, 1906

Argyra diaphana, F. A. leucocephala, Mg. A. argyria, Mg. A. argentina, Mg. A. confinis, Ztt.; common in Woolhope district. A. atriceps, Lw.; the Monnow, several, 20 June, 1906

Leucostola vestita, Wied.; distributed
Thrypticus sp.; Clifford's Castle, two males, 12 July, 1906. Not bellus, Lw., but apparently identical, according to Verrall, with a species taken in Scotland by Colonel Yerbury

Porphyrops antennata, Carl.; Clifford's Castle, a male, 13 August, 1902 (Y.) P. spinicoxa, Lw. P. elegantula, Mg.; Clifford's Castle, 13 August, 1902 (Y.). P. nemorum, Mg.; the Monnow, a few, 3 July, 1906. P. crassipes, Mg.

Xiphandrium fasciatum, Mg.; Tarrington (Y.). X. monotrichum, Lw. X. auctum, Lw.; not rare in one of the small bogs of Haugh Wood. X. caliginosum, Mg. X. appendiculatum, Ztt.

Achalcus flavicollis, Mg.; Woolhope, once, 8 July,

Syntormon pumilus, Mg. S. denticulatus, Ztt., var. biseriatus, Lw. S. spicatus, Lw.; Stoke Wood, a male, 30 June, 1906. S. pallipes,

Medeterus muralis, Mg. M. tristis, Ztt. M. apicalis, Ztt. M. jaculus, Mg. M. truncorum, Mg. Scellus notatus, Lw.

Hydrophorus litoreus, Fln. H. bipunctatus, Lehm.; Leech Pool

Liancalus virens, Scop.

Campsienemus scambus, Fln.; Clifford's Castle (Y.). C. curvipes, Fln. C. armatus, Ztt.; Tram Inn

and Clifford's Castle (Y.)

Teuchophorus spinigerellus, Ztt.; Woolhope and Pembridge. T. monacanthus, Lw.; the Monnow, a few, 28 August, 1906. T. calcaratus, Mcq.; a few at the same time and place as the preceding. T. pectinifer, Kow.; common and generally distributed. T. simplex, Mik.; in most of the small boggy spots in the Woolhope Woods, late in the autumn

Sympycnus annulipes, Mg.

Bathycranium bicolorellum, Ztt.; in boggy spots in some of the Woolhope Woods, August to October Chrysotimus concinnus, Ztt.; Westhide, 28 August, 1904, Haugh Wood, 25 Sept. 1906, singly Xanthochlorus tenellus, Wied.; Shobdon Marsh. X.

ornatus, Hal. ; Tarrington (Y.)

Lonchoptera lutea, Pz. L. flavicauda, Mg. lineata, Ztt.; Malvern Hills (Y.). L. fuscipennis, Boh.; Woolhope Woods, very common

#### CYCLORRHAPHA

Opetia nigra, Mg.; common

Platycnema pulicaria, Fln.; rather scarce, probably overlooked

Callimyia speciosa, Mg. C. amaena, Mg.; both species common in damp shady parts of woods. C. elegantula, Fin.; three females, Coldborough Park, 23 May, 1904; Longtown, 24 June, 1904; Stoke Wood, 11 August, 1905. Has not apparently been taken elsewhere

## CYCLORRHAPHA (continued)

Agathomyia antennata, Ztt. A. virduella, Ztt.; Woolhope district, by no means scarce, though not so common as the preceding species. A. boreella, Ztt.; Shobdon Marsh, not uncommon; Stoke Wood, scarce. A. sp. inc.; one female, Stoke Wood, 14 Oct. 1905. Allied to boreella, but with a grey thorax, the abdomen more extensively orange at the base, and the stalk of the halteres yellow

Platypeza consobrina, Ztt. P. modesta, Ztt. P. rufa, Mg. P. atra, Mg.; Stoke Wood, not common. P. furcata, Fln.; Haugh Wood and Stoke Wood a few, always in May or June. P. dorsalis, Mg. P. fasciata, Mg. P. hirticeps, Verr.; Cusop Dingle, where it was first discovered. P. infumata, Hal. P. picta, Mg.;

rather scarce, especially the male

Chalarus spurius, Fln.

V. aucta, Fln. Verrallia pilosa, Ztt.

Pipunculus furcatus, Egg. P. zonatus, Ztt. P. fascipes, Ztt.; widely distributed, but not common. P. modestus, Hal.; Cusop Dingle, 4 July, 1903, Longtown, 24 June, 1904, singly. P. fuscipes, Ztt.; common and distributed. P. arimosus, Beck.; Shobdon Marsh, a female, 18 August, 1904. The name was suggested by Mr. Verrall with some doubt; the insect is remarkable for the presence of four long black hairs at the bend of the hind tibiae. P. vittipes, Ztt.; Cusop Dingle, two females, 26 July, 1902. P. campestris, Ltr. P. pratorum, Fln. P. flavipes, Mg.; Cusop Dingle and Woolhope, not rare. P. strobli, Verr. P. pulchripes, Thoms.; Woolhope, common among bracken in August. P. confusus, Verr.; not common, but widely distributed. P. rufipes, Mg.; Woolhope, Doward, Shobdon Marsh, scarce. P. haemorrhoidalis, Ztt.; Congleton Marsh, near Ross, common in May. P. xanthopus, Thoms.; Congleton Marsh, 14 May, 1902; Shobdon Marsh, 18 July, 1903; Tram Inn, 22 June, 1905, always singly. P. semimaculatus, Beck.; Wall Hills, near Ledbury, two males, 21 June, 1901; 4 July, 1902, in a boggy spot. P. geniculatus, Mg. P. maculatus, Wlk.; Coldborough Park, Woolhope, and Ross, scarce. P. sylvaticus, Mg.; Cusop Dingle

Paragus tibialis, Fln.

Pipizella virens, F. P. maculipennis, Mg.; Welsh Newton, a female, 27 July, 1900. P. flavitarsis,

Mg. P. heringi, Ztt.

Pipiza luteitarsis, Ztt.; scarce or overlooked. P. quadrimaculata, Pr.; Woolhope, a male, 7 May, 1898. P. nocticula, L. P. fenestrata, Mg. In May, 1900, both sexes were common in Stoke Wood. P. lugubris, F.; a few, Woolhope and Westhide. P. bimaculata, Mg.; spring and autumn; P. signata, Mg. P. notata, Mg.

Cnemodon vitripennis, Mg.

Orthoneura brevicornis, Lw.; not rare. O. nobilis, Fln.

Liogaster splendida, Mg.; Shobdon Marsh, in July.

L. metallina, F.

Chrysogaster splendens, Mg. C. hirtella, Lw. C. macquarti, Lw.; Black Taren, near Longtown, not rare. C. chalybeata, Mg. C. solstitialis, Fln.

## CYCLORRHAPHA (continued)

Chilosia maculata, Fln.; very common wherever Allium ursinum grows. C. sparsa, Lw. C. antiqua, Mg.; Dorstone and Cusop Dingle. C. longula, Ztt. C. scutellata, Fln. C. soror, Ztt.; Woolhope, Leabury, and Ross; not common. C. pulchripes, Lw. C. variabilis, Pz. C. honesta, Rnd.; Woolhope, Doward, and Cusop Dingle; always singly and in May. C. vulpina, Mg.; very common in Herefordshire. C. intonsa, Lw.; the Doward, two males, 10 July, 1899, and 7 Sept. 1901; one female, Woolhope, 21 May, 1903. C. illustrata, Harr. C. chrysocoma, Mg.; Haugh Wood, one female of this great rarity; taken 9 May, 1898, whilst sunning itself on a hot wood path in the afternoon sun. C. nebulosa, Ven.; Stoke C. albipila, Mg. Wood, a male, 28 April, 1902. C. impressa, Lw. C. albitarsis, Mg. C. fraterna, Mg. C. praecox, Ztt.; Woolhope, two females, 21 May, 1902, 4 May, 1903. C. mutabilis, Fln.; Cusop Dingle, two males, 12 June, 1900, 11 July, 1903. C. vernalis, Fln. C. proxima, Ztt. C. cynocephala, Lw.

Platychirus manicatus, Mg. P. discimanus, Lw. P. peltatus, mg. P. scutatus, Mg. P. albimanus, F. P. scambus, Stoeg. Wall Hills near Ledbury, a female, 8 June, 1899. P. perpallidus, Verr.; on large reedy pools. P. clypeatus, Mg. P. angustatus, Ztt.; Pembridge, one male, 6 July, 1901, Woolhope, one female, 31 July, 1902. P. sticticus, Mg. Stoke Wood, a single male,

4 May, 1902

Pyrophaena granditarsa, Forst.; P. rosarum, F.; both species common in marshy places

Melanostoma ambiguum, Fln.; common in April and

May. M. mellinum, L. M. scalare, F. Melangyna quadrimaculata, Verr.; abundant at sallow blossom

Xanthandrus comtus, Harr.; occasionally in the autumn, Woolhope and Doward

Leucozona lucorum, L.

Ischyrosyrphus glaucius, L. I. laternarius, Müll.; not uncommon sometimes in July and August.

Didea fasciata, Mcq.; the Doward, common; Woolhope, occasionally. D. alneti, Fln.; Woolhope, once, 30 June, 1906.

Catabomba pyrastri, L. C. selenitica, Mg.; Wool-

hope (Y.)

Syrphus albostriatus, Fln. S. tricinctus, Fln. S. venustus, Mg. S. lunulatus, Mg. S. annulipes, Ztt.; Woolhope, two males and two females; the former in the autumn, and the latter in the spring (11 May, 1901, 14 May, 1901). S. torvus, O.-S. Cusop Dingle, a male, 7 Sept. 1898. S. annulatus, Ztt. S. vittiger, Ztt.; Westhide, a female, 20 May, 1901. S. grossulariae, Mg.; widely distributed, but scarce. S. nitidicollis, Mg. S. corollae, F. S. luniger, Mg. S. bifasciatus, F. S. balteatus, Deg. S. cinctellus, Ztt. S. cinctus, Fln.; commoner than the preceding species. S. auricollis, Mg.; the var. maculicornis as common as the type. S. euchromus, Kow.; Haugh Wood, a male, 25 May, 1898. S. triangulifer, Ztt.; two females, Cusop Dingle, 25 July, 1900, Stoke Wood, 10 Sept. 1906; only some three or four others have been taken in Britain. S. punctulatus, Verr.

## CYCLORRHAPHA (continued)

S. guttatus, Fln.; Woolhope, a pair; the male, 22 June, 1903, and the female, 16 July, 1904. S. umbellatarum, F. S. compositarum, Verr.: Cusop Dingle, common; Tarrington, scarce. S. labiatarum, Verr. S. lasiophthalmus, Ztt. S. arcticus, Ztt.; Dorstone and Westhide, occasionally. S. barbifrons, Fln.; Woolhope, and Westbide, more often than the preceding.

Sphaerophoria scripta, L. S. menthrasti, L. S. flavi-

cauda, Ztt.

Xanthogramma ornatum, Mg. X. citrofasciatum, Deg.; both are scarce, especially the last

Baccha obscuripennis, Mg. B. elongata, F.

Sphegina clunipes, Fln.; always singly, and by the side of streams in hilly districts

Ascia podagrica, F. A. dispar, Mg. A. floralis, Mg.; one female, Leech Pool, 27 August, 1902.

Brachyopa bicolor, Fln.; Woolhope, not uncommon Rhingia campestris, Mg.; the males are fond of hovering in the air.

Volucella bombylans, L. V. inflata, F.: Woolhope,

common. V. pellucens, L.

Eristalis sepulchralis, L.; not uncommon. E. tenax, L. E. intracarius, L. E. arbustorum, L. E. nemorum, L. E. pertinax, Scop. E. rupium, F.; Cusop Dingle. E. horticolor, Deg.

Myiatropa florea, L.

Helophilus trivittatus, F.; once, Shobdon Marsh, 13 July, 1904. H. hybridus, Lw. H. pendulus, L. H. versicolor, L. H. transfugus, L.; common at Devereux Pool, Woolhope. H. linea-

Mallota cimbiciformis, Fln.; taken once by Mr.Colbran Wainwright at Westhide in July, 1899

Criorrhina ranunculi, Pz.; more often seen than taken. C. berberina, F. C. oxyacanthae, Mg. floccosa, Mg.; rather scarce. C. asilica, Fln.; not uncommon in Woolhope district

Brachypalpus bimaculatus, Mcq.; twice by Col. Yerbury at Ledbury, and once by Mr. Wainwright

in the neighbourhood of the Malverns

Xylota segnis, L. X. lenta, Mg. X. X. florum, F.; Tarrington (Y.). X. lenta, Mg. X. sylvarum, L. X. abiens, W.; frequents the stools of recently felled oaks in company with the much commoner X. segnis

Syritta pipiens, L.

Eumerus ornatus, Mg.; common in woods

Chrysochlamys cuprea, Scop.

Arctophila mussitans, F.; widely distributed, but most frequent in the north and west

Sericomyia borealis, Fln. S. lappona, L.; both are common on the north and west, but scarce in the lowlands

Chrysotoxum cautum, Harr. C. octomaculatum, Cust.; Woolhope (Y.), scarce. C. elegans, Lw. C. festivum, L. C. bicinctum, L.

Conops quadrifasciata, Deg. C. ceriiformis, Mg. flavipes, L. All three species are common

Physocephala rufipes, F.

Zodion cinereum, F.; Cusop Dingle, once (Y.)

Oncomyia atra, F.; widely distributed

Sicus ferrugineus, L.

Myopa buccata, L. M. testacea, L; Woolhope, scarce. M. polystigma, Rnd.

Gastrophilus equi, F.

Hypoderma lineatum, Vill.; Cusop Dingle, Woolhope

#### CYCLORRHAPHA (continued)

Oestrus ovis, L.

Meigenia egens, Egg.; Clifford's Castle (Y.). M. bisignata, Mg. M. floralis, Mg.

Viviana cinerea, Fln.; Woolhope, 15 July, 1899; Longtown, 24 June, 1904; singly on each occasion

Ceromasia machairopsis, B. and B. C. juvenilis, Rnd.; Tarrington, twice, 8 July, 1902, and 3 Sept. 1902. C. senilis, Mg.; myiodea, Dov. C. parva, Mcq.; Stoke Edith, and Tarrington, rarely. C. stabulans, Mg.; Bodenham, once, 18 August, 1897. C. brevipennis, Mg. C. florum, Mcq.; rutila, Mg.; Westhide & 30 May, 1906, Stoke Wood & 6 June, 1906

Gymnochaeta viridis, Fln.

Exorista vetula, Mg. E. cheloniae, Rnd. E. agnata, Rnd.; Clifford's Castle, and Tram Inn (Y.). E. fimbriata, Mg.; Cusop Dingle, once, 10 August, 1901. E. jucunda, Mg. E. lucorum, Mg.; Bodenham, 29 July, 1897.

Epicampocera succincta, Mg. Blepharidea vulgaris, Fln. Myxexorista fauna, Mg.

Parexorista glaucans, Rnd.; Pembridge, once, 23 July,

Frontina instabilis, Rnd.; Cusop Dingle and Woolhope, referred rather doubtfully to this species by Mr. Wainwright

Phorocera serriventris, Rnd.; concinnata, Mg.; Nash Scarr, once, 18 June, 1901. P. cilipeda, Rnd. P. pumicata, Mg.; not rare

Bothria caesifrons, Mcq. B. segregata, Rnd. Blepharipoda atropivora, Rnd.; morosa, Mg.

Sisyropa acronyctarum, Mcq. S. gnavae, Mg.; lucorum, Rnd.; Stoke Wood, a pair, 28 May, 1900. S. lota, Mg.

Chaetolyga analis, Mcq. C. amoena, Mg. Tachina erucarum, Rnd. T. rustica, Mg.

Gonia fasciata, Mg.; not common

Monochaeta leucophaea, Mg. Aporomyia dubia, Fln.

Somolia simplicitarsis, Ztt.; rebaptizata, Rnd.

Pelatachina tibialis, Fln.

Macquartia tenebricosa, Mg. M. nitida, Ztt.; Stoke Wood, once, 28 May, 1900. M. affinis, Schin.; Stoke Wood, once, 28 August, 1903. M. grisea, Fln.; not uncommon in late autumn. M. spinicincta, Meade; rather common. flavipes, Mg.

Macroprosopa atrata, Mg.; Woolhope (Y.)

Loewia setibarba, Egg.

Ptilops chalybeata, Mg. P. nigrita, Fln.; widely distributed and not rare

Anthrocomyia nana, Mg. A. anthracina, Mg.

Hyalurgus lucidus, Mg.; Nash Scarr, Shobdon Marsh, and Tarrington; on cow-parsnip in July, the male very rare

Ptychomyia selecta, Mg.; widely distributed

Degeeria medorina, Schirt.

Trichoparia seria, Mg.; Ctoke Wood, not rare

Thelaira leucozona, Pz.

Demoticus frontatus, Boh.

Myiobia fenestrata, Mg. M. longipes, Mg.; Tram Inn (Y.), Woolhope; only singly. M. inanis, Fln.

Rhynchista prolixa, Mg. Olivieria lateralis, F.

#### CYCLORRHAPHA (continued)

Erigone radicum, F. E. strenua, Mg. E. vagans, Mg. E. caesia, Fln. E. rudis, Fln. E. truncata, Ztt.; Black Mountain district, common. E. pectinata, Girsch.; Tarrington, a female taken by Col. Yerbury, I August, 1903, the only known British example. E. nemorum, Mg.; Westhide, four QQ in May, 1899, (Wainwright)

Echinomyia fera, L.

Fabricia ferox, L.; the *Doward*, scarce. Servillia lurida, F. S. ursina, Mg.; both species common in Woolhope district

Plagia ruralis, Fln. P. curvinervis, Ztt.; not common. P. trepida, Mg.

Anachaetopsis ocypterina, Ztt.

Phorichaeta carbonaria, Pz.; Stoke Wood, once, II Sept., 1897. P. tricincta, Rnd.; Woolhope and Cusop Dingle. P. succincta, Rnd.; Whitchurch, 12 June, 1903; a single example, referred to this species by Mr. Wainwright with some doubt. P. latifrons, Rnd.; Whitchurch, 3 June, 1903, also at Tarrington, by Col. Yerbury

Ptychoneura rufitarsis, Mg.

Discochaeta muscaria, Fln.; Woolhope, several in June. D. separata; Tarrington, 9 June, 1902 (Y.)

Admontia blanda, Fln.

Roeselia antiqua, Mg. R. pallipes, Fln.; Stoke Wood, Westhide, and Ashperton Park; three males and two females, the dates extending from the last day of April to June 6. For the distinction between these two species see Mr. Wainwright's paper (E. M. M. xvi, New Ser. p. 202). One of the above females is in lovely condition and shows that this sex also has the dark bands on the abdominal segments. A Roeselia taken indoors, 13 July, 1906, has the fourth vein complete, but with none of the other characters of pallipes, and its general appearance as well as the date point to its being antiqua

Digonochaeta spinipennis, Mg.

Craspedothrex vivipara, B. and B.; Woolhope, not uncommon

Thryptocera pilipennis, Mg. T. crassicornis, Mg. T. cognata, Selsin. T. frontalis, Mcq.; Cusop Dingle and Shobdon Marsh, twice at each place

Phytomyptera nitidiventris, Rnd.; Stoke Wood, 11 July, 1902, once

Blepharomyia amplicornis, Ztt. Pembridge, 23 July 1903, once

Siphona cristata, F. S. geniculata, Deg. Cercomyia thoracica, Mg.; Haugh Wood, once; Mains Wood, commonly, buzzing at the flowers of the common tormentil, 31 July, 1900

Phasia fasciola, Ztt.; Tarrington, once, 12 May, 1898

Alophora hemiptera, F.; rarely. A. pusilla, Mg. Syntomogaster viduus, Egg.; Westhide and the woods Usually swept in shady paths of Woolhope. where fallen oak leaves collect; in two distinct sizes, the larger and much the commoner being twice as big as the smaller

Trixa oestroidea, Dsv.

Fortisia foeda, Mg.

Phyto melanocephala, Mg.; Woolhope, scarce. P. nigra, Dsv.; Woolhope, scarce Stevenia maculata, Fln.

# CYCLORRHAPHA (continued)

Melanophora roralis, L.; Tarrington (Y.). M. atra, Mcq.; Tarrington, once, 23 June,

Frauenfeldia rubricosa, Mg.; Westhide & 7 August, 1902; house, two PP 14 and 16 August, 1902

Brachycoma devia, Fln.

Clista lepida, Mg.

Heteronychia chaetoneura, B. and B.; once, Stoke Wood, 28 July, 1900

Nyctia halterata, Pz.

Engyops micronyx, B. and B.; Doward, 6 July, 1899, house, 6 July, 1902

Miltogramma punctatum, Mg.

Metopia campestris, Fln.; once, Stoke Wood, 29 June, 1903. M. leucocephala, Rossi. M. amabilis, Mg.

Dexiosoma caninum, F.

Dexia rustica, F. D. vacua, Fln.

Estheria cristata, Mg.; Longtown, common on blossoms of cowparsnip in July and August

Dinera grisescens, Fln.

Myiocera carinifrons, Fln.

Cynomyia alpina, Ztt. Westhide and Woolhope, occasionally. C. mortuorum, L.; Woolhope, Black Mountain, rarely

Onesia sepulchralis, L. O. cognata, Mg.; Tram Inn

Sarcophaga carnaria, L. S. atropos, Mg. S. melanura, Mg. S. agricola, Mg. S. nigriventris, Mg. S. juvenis, Rnd. S. clathrata, Mg. S. dissimilis, Mg. S. haemorrhoidalis, Mg. haematodes, Mg. S. haemorrhoa, Mg.

Stomoxys calcitrans, L.

Haematobia stimulans, Mg.

Pollenia vespillo, F. P. rudis, F.

Myiospila meditabunda, F.

Graphomyia maculata, Scop. G. picta, Ztt. At Devereux Pools, Woolhope, not rare

Musca domestica, L.

Cyrtoneura stabulans, Fln. C. pascuorum, Mg. C. caesia, Mg.

Morellia simplex, Lw. M. hortorum, Fln. M. curvipes, Mcq.

Mesembria meridiana, L.

Pyrellia cyanicolor, Ztt.; Cusop Dingle. P. lasiophthalma, Mcq.

Protocalliphora azurea, Fln.; not rare

Calliphora erythrocephala, Mg. C. vomitaria, L. Euphoria cornicina, F.

Lucilia caesar, L. L. sericata, Mg.
Polietes lardaria, F. P. albolineata, Fln.
Hyetodesia incana, Wied. H. lucorum, Fln. H. marmorata, Ztt.; Dorstone once, 30 June, 1898. H. serva, Mg. H. obscurata, Mg. H. variabilis, Fln.; Cusop Dingle, abundant; Woolhope, scarce. H. umbratica, Mg. H. semi-cinerea, Wied. H. semidiaphana; Coldborough Park, a male, 23 May, 1904. H. variegata, Mg.; Tarrington (Y.). H. laeta, Fln.; Woolhope, a male, 13 May, 1898. H. perdita, Mg. H. errans, Mg. H. signata, Mg. H. lasiophthalma, Meg. H. erratica, Fln. H. basalis, Ztt. H. rufipalpis, Mcq. H. abdominalis, Ztt.; Tarrington, two females. H. scutellaris, Fln. H. pallida, F.

Allaeostylus simplex, Wied. A. flaveola, Fln.

#### CYCLORRHAPHA (continued)

M. nigritella, Ztt. Mydaea vespertina, Fln. allotalla, Mg.; wet places, Tram Inn and Shobdon Marsh. M. sordidiventris, Ztt.; Woolhope. M. nigricolor, Fln. M. urbana, Mg. M. affinis, Mde. M. longitarsis, Mde. Shobdon Marsh, 13 July, 1904, one male. M. tincta, Ztt. M. pagana, F. M. impuncta, Fln. M. separata, Mg.

Sphecolyma inanis, Fln.; occasionally

Spilogaster nigrinervis, Ztt. S. maculosa, Mg.; wet places; Leech Pool and Tram Inn. S. notata, Fln.; in the same localities as maculosa, also at Devereux Pools in Woolhope. S. quadrimaculata, Fln. S. duplicata, Mg. S. atripes, Mde. S. caesia, Mcq.; widely distributed. S. quadrum, F. S. depuncta, Fln. S. uliginosa, Fln.; always indoors, not rare. S. consimilis, Fln. S. pertusa, Mg. S. fuscata, Fln. S. trigonalis, Mg. S. ciliatocosta, Ztt.; Tram Inn

Limnophora compuncta, Wied. L. trianguligera,
Ztt. L. contractifrons, Ztt. L. septemnotata, Ztt. L. solitaria, Ztt.; banks of the

Monnow, common

Melanochila riparia, Fln. Cusop Dingle, Bodenham

Macrorchis meditata, Fln.; Cusop Dingle, Longtown, banks of Monnow

Chelisia monilis, Mg.; Woolhope, not rare Hydrotaea ciliata, F. H. occulta, Mg. H. curvipes, Ztt.; widely distributed, damp woods; the males play together in the air, the females obtained by sweeping. H. irritans, Fln. H. dentipes, F. H. palaestrica, Mg. H. similis, Mde. H. albipuncta, Ztt.; widely distributed. H. tuberculata, Rnd.; widely distributed. H. meteorica, L. H. armipes, Fln. H. parva, Mde.; widely distributed, in marshy places; the males sport in the air a foot or so above the herbage

Ophyra leucostoma, Wied. O. anthrax, Mg.; not common

Drymia hamata, Fln.

Trichopticus cunctans, Mg. T. semipellucidus T. hirsutulus, Ztt. T. Ztt. Mde.

Hydrophoria ambigua, Fln.; Shobdon Marsh, once, 18 August, 1904. H. divisa, Mg.; the Leech Pool in August, common. H. candata, Ztt.; Coldborough Park in May, not uncommon. H. conica, Wied. H. linogrisea, Mg.; Tarrington and Westhide, scarce. H. brunneifrons, Ztt. H. anthomyiea, Rnd.

Hylemyia virginea, Mg. H. variata, Fln. lasciva, Ztt. H. flavipennis, Fln. H. nigrescens, Rnd. H. paralleliventris, Ztt.; apparently this species and not cinerella, Mg. Larva in flowers of ragwort in the autumn, pupating on the ground and not in situ, which distinguishes it from Trypetid larvae. H. pullula, Ztt. H. strigosa, F. H. nigrimana, Mg. H. puella, Mg.; widely distributed and H. coarctata, Fln. H. crinivencommon. tris, Ztt.; Woolhope, scarce

Eustalomyia histrio, Ztt.; scarce; fond of sitting on

gates and gate-posts

Lasiops roederi, Kow. L. ctenoctema, Kow. L. maedii, Kow.

CYCLORRHAPHA (continued)

Anthomyia pluvialis, L. A. pratincola, Pz. The Doward, once. A. radicum, L. A. sulciven-

Chortophila unilineata, Ztt. The *Doward*, once, 24 April, 1900. C. striolata, Fln. C. cinerella, Fln.; common. C. trapezina, Ztt. C. sepia, Mg. C. billbergi, Ztt.; common.

C. sylvestris, Fln.; common

Phorbia floccosa, Mcg. P. transversalis, Ztt. P. discreta, Mg. P. pudica, Rnd. P. muscaria, P. cilicrura, Rnd. P. trichodactyla, P. florilega, Ztt. P. ignota, Rnd. P. neglecta, Mde. P. dissecta, Mg.

Pegomyia conformis, Fln. P. rufipes, Fln.; common, sometimes abundant. P. latitarsis, Ztt. The females not uncommon. P. bicolor, Wied. P. nigritarsis, Ztt. P. fulgens, Mg. P. winthemi, Mg.; Woolhope, scarce. P. flavipes, Fln. P. vittigera, Ztt. P. silacea,

Chirosia albitarsis, Ztt.; Black Mountain, once

Homalomyia hamata, Meq. H. fuscula, Fln. H. pretiosa, Schin.; very common in the Woolhope Woods. H. pallitibia, Rnd.; not uncommon. H. manicata, Mg. H. monilis, Hal.; Woolhope, scarce; once bred in April from fungus gathered the previous autumn. H. scalaris, F. H. canicularis, L. H. difficilis, Stein; Shobdon Marsh; twice, 18 August, 1904, and 3 August, 1904. H. armata, Mg. H. aërea, Ztt. H. coracina, Lw.; common and widely H. verrallii, Stein; Ross and distributed. Woolhope (Y.). H. postica, Stein. H. sociella, Ztt. H. similis, Stein; Woolhope and Cusop Dingle, scarce. H. parva, Stein; Woolhope, Ledbury; not rare. H. serena, Fln. H. corvina, Verr.; Woolhope, rare. H. polychaeta, Stein; Woolhope, common. H. incisurata, Ztt. H. mutica, Ztt.

Piezura pardalina, Rnd.

Azelia macquarti, Staeg. A. zetterstedti, Rnd. A. cilipes, Hal. A. gibbera, Mg.; Cusop Dingle, rare. A. aterrima, Mg.; widely distributed and not rare

Coelomyia mollissima, Hal.; Woolhope, common

Caricea tigrina, F. C. intermedia, Fln.; Cusop Dingle, Shobdon Marsh; not common. C. means, Mg.; Black Mountain, common

Allognota agromyzella, Rnd.; common

Caenosia infantula, Rnd. C. triangula, Fln. C. sexnotata, Mg. C. genualis, Rnd. C. ungulata, Rnd.; Leech Pool, scarce. C. verna, F.; Woolhope, Leech Pool, Tram Inn; not scarce. C. dorsalis, v. Ros.; common

Hoplogaster, mollicula, Fln.

Lispe tentaculata, Deg.

Schoenomyza litorella, Fln.; Woolhope, Tram Inn; not

Cordylura pudica, Mg.; Woolhope and Ross (Y.). C. pubera, F. C. ciliata, Mg.; widely distributed and common. C. umbrosa, Mg.; Woolhope, C. biseta, Lw.; Woolhope, Leech Ledbury. Pool, &c.

Parallelomma albipes, Fln. P. vittata, Mg.; Stoke Wood, Haugh Wood; occasionally

Cnemopogon apicalis, Mg.; Tarrington, Leech Pool, common

CYCLORRHAPHA (continued)

Leptopa filiformis, Ztt.; three females; Stoke Wood, 14 June, 1902, 24 June, 1903; Cusop Dingle, 11 July, 1903

Amaurosoma fasciata, M.; common and widely distributed. A. tibiella, Ztt.; common and widely distributed. A. cinerella, Ztt.; once, old canal, Munsley, 20 May, 1902

Norellia spinimana, Fln. N. liturata, Mg.; common and widely distributed. N. spinigera, Ztt.: once, summit of Black Mountain, 22 August,

Pogonota hircus, Ztt.; Leech Pool, scarce

Trichopalpus punctipes, Mg.; Leech Pool, common Spathiophora hydromyzina, Fln.; Leech Pool, scarce

Scatophaga suilla, F.; Cusop Dingle. S. inquinata, Mg. S. maculipes, Ztt. S. analis, Mg.; Ledbury, Woolhope, Tram Inn. S. lutaria, F. S. stercoraria, L. S. squalida, Mg.

Clidogastra nigrita, Fln.; Woolhope, scarce

Helomyza humilis, Mg.; Cusop Dingle, scarce. H. inornata, Lw. H. rufa, Fln. H. pectoralis. Lw. H. affinis, Mg. H. flava, Mg.; Stoke Wood, scarce. H. laevifrons, Lw. H. suilloidea, Hal. H. ustulata, Mg.; Stoke Wood, Westhide; occasionally, both in spring (March and April) and autumn. H. montana, Lw. H. zetterstedtii, Lw. H. pallida, Fln. H. flavifrons, Ztt.; Stoke Wood, Haugh Wood, both in spring and autumn, but not common

Allophyla atricornis, Lw.

Oecothea fenestralis, Fln.; Tarrington; once, indoors

Eccoptomera emarginata, Lw.; Stoke Wood, not rare. E. longiseta, Ztt. Stoke Wood, Ashperton Park; scarce. E. microps, Mg.; Stoke Wood, Westhide, scarce

Blepharoptera spectabilis, Lw.; Woolhope, once only. B. caesia, Mg.; Woolhope, common. B. ruficanda, Ztt. B. inscripta, Mg. B. ruficeps, Ztt.; Stoke Wood; common in late autumn on carrion. B. ruficornis, Mg. B. serrata, L. B. modesta, Mg.; Black Mountain, on the summit. The occurrence of this seaside insect so far inland and at 2,000 feet above sea level is interesting

Heteromyza atricornis, Mg.; Cusop Dingle (Y.); Stoke Wood, a few. H. commixta, Coll.; the female common (often indoors), the male rare. H. occulata, Fln.; Stoke Wood, Longtown, scarce

Tephrochlamys rufiventris, Mg. T. flavipes, Ztt.

Heteroneura albimana, Mg. Stomphastica flava, Mg.

Dryomyza flaveola, F. D. decrepita, Ztt.

Neuroctena anilis, Fln.

Neottiophilum praeustum, Mg.; Woolhope, a few Ctenulus pectoralis, Ztt.; Leech Pool and Tram Inn, not common

Dichrochira leucopeza, Mg.; Tram Inn, scarce. D. nigrimana, Mg.; Leech Pool and Tram Inn, not common

Sciomyza glabricula, Fln.; Woolhope, Tarrington; scarce. S. pallida, Fln. S. fuscinervis, Ztt.; old canal, Munsley, once only. S. bifasciella, Fln.; Tram Inn and Leech Pool; once at each place by Col. Yerbury. S. Nana, Fln.; Tarrington (Y.), Tram Inn; once only at each place. S. schoenherri, Fln. S. cinerella, Fln.

# CYCLORRHAPHA (continued)

S. dubia, Fln. S. pallidiventris, Fln. S. pallidicarpa, Rnd.; Woolhope, Ross; not uncommon in late autumn. S. ventralis, Fln.; widely distributed and common. S. pusilla, Ztt.; Leech Pool, once, 3 July, 1902. S. dorsata, Ztt. Tram Inn, not common. S. ruficeps, Ztt.; Tram Inn, common. S. griseola, Fln.; common and widely distributed, in boggy places. S. albocostata, Fln. S. annulipes, Ztt.; Ledbury (Y.), Cusop Dingle; scarce

Phaeomyia fuscipennis, Mg.

Tetanocera elata, F. T. laevifrons, Lw. T. sylvatica, Mg. T. ferruginea, Fln. T. robusta, Lw.; wet places, not so common as many of the others. T. punctata, F. T. coryleti, Scop. T. punctulata, Scop.

Limnea marginata, F.; The Doward, Woolhope, West-hide; not common. L. unguicornis, Scop.

L. rufifrons, F. L. obliterata, F.

Elgiva albiseta, Scop. E. dorsalis, F. E. lineata, Fln.; Leech Pool, common; Tram Inn, scarce. E. rufa, Pz. E. cucularia, L.

Sepedon sphegeus, F. S. spinipes, Scop.; both

common in marshy places

Psila fimetaria, L. P. rufa, Mg.; widely distributed, but not common. P. pallida, Fln.; twice; Cusop Dingle, 11 June, 1902, Tarrington (indoors), 22 June, 1906. P. rosae, F. P. debilis, Egg.; once, Howle Hill, 24 June, 1905. P. atra, Mg.; Woolhope, common in poor flowery grass lands. P. bicolor, Mg.; Woolhope, Tram Inn, Cusop Dingle; not common. P. villosula, Mg. = gracilis, Mg.; Tarrington (Y.)

Cheliza leptogaster, Pz. C. vittata, Mg.: Stoke Wood,

Westhide; occasionally

Loxocera aristata, Pz. L. albiseta, Schrk. L. sylvatica, Mg.; Coldborough Park and Mains Wood, both in Woolhope district, rare. L. fulviventris, Mg.; Ledbury (Y.), Stoke Wood, a few

Lissa loxocerina, Fln.

Calobata cibaria, L.; Cusop Dingle (Y.). C. cothurnata, Pz.; marshy places. Shobdon Marsh and Whitchurch. C. petronella, L.; R. Monnow. C. adusta, Lw.; Cusop Dingle and R. Monnow. C. trivialis, Lw.

Ptilonota guttata, Mg.

Pteropaectria afflicta, Mg. P. nigrina, Mg.; Tar-P. palustris, Mg. P. fronrington (Y.). descentiae, L.

Platystoma seminationis, F.

Seoptera vibrans, L.

Anomoea antica, Wied.; Woolhope once, 29 August, 1901

rotundiventris, Fln.; Tarrington, Shobdon Marsh (Y.)

Acidia cognata, Wied.; Cusop Dingle, R. Monnow (Y.). A. heraclei, L. A. lychnidis, F.; Stoke Wood, Shobdon Marsh

Gonyglossum wiedemanni, Mg.; Woolhope; bred from the berries of Bryonia dioica

Spilographa abrotani, Mg.; Stoke Wood, 20 August,

1895 (Y.). S. zoe, Mg. S. alternata, Fln. Trypeta onotrophes, Lw. T. tussilaginis, F. T. lappae, Cedj. T. florescentiae, L. T. serratulae, L.; Tram Inn and Woolhope, rather uncommon

# CYCLORRHAPHA (continued)

Urophora solstitialis, L. U. stylata, F. U. cardui, L.; Bodenham (Y.), Woolhope; only its wellknown galls in Carduus arvensis noticed

Sphenella marginata, Fln.

Carphotricha guttularis, Mg.; Woolhope, Ross, Cusop Dingle; among bracken, not rare. C. pupillata, Fln.; the Doward, once

Ensina sonchi, L.; top of the Black Mountain, Wool-

hope, scarce

Tephritis miliaria, Schrk. T. corniculata, Fln.; Tram Inn, not uncommon; Tarrington, scarce. T. proboscidea, Lw. T. tessellata, Lw.; the Doward, once. T. elongatula, Lw.; Haugh Wood in July, scarce. T. hyoscyami, L.; Leech Pool, 27 August, 1902, Cusop Dingle, 12 September, 1905. T. formosa, Lw.; Woolhope, once (Y.). T. conura, Lw.; top of the Black Mountain, once. T. vespertina, Lw. T. bardanae, Schrk.

Euaresta conjuncta, Lw.

Urellia stellata, Fuessl.; Woolhope, scarce

Lonchaea vaginalis, Fln.

Palloptera saltuum, L.; widely distributed, but not common. P. ustulata, Fln. P. umbellatarum, F. P. parallela, Lw.; Woolhope, scarce. P. ambusta, Mg.; Stoke Wood, scarce. P. trimacula, Mg. P. arcuata, Fln. P. laetabilis, Lw.; Shobdon Marsh, also once in Stoke Wood

Toxoneura muliebris, Harr.

Peplomyza wiedemanni, Lw. Sapromyza illota, Lw.; widely distributed and common. S. affinis, Ztt.; Cusop Dingle, Shobdon Marsh; abundant. S. longipennis, F. S. lupulina, F. S. fasciata, Fln. S. longiseta, Lw.; widely distributed, most plentiful at *Tram Inn.* S. inusta, Mg. S. decempunctata, Fln. S. sexpunctata, Mg.; Woolhope, scarce. S. notata, Fln.; Tram Inn (Y.). S. pallidiventris, Fln. S. bipunctata, Mg.; Woolhope and Westhide, scarce. S. rorida, Fln. S. praeusta, Fln. S. decaspila, Lw.; Stoke Wood and Cusop Dingle, not common. S. albiceps, Fln.; Stoke Wood, not uncommon. S. plumicornis, Fln.; R. Monnow, scarce. S. decipiens, Lw. S. anisodactyla, Lw. S. difformis, Lw. S. frontalis, Lw.; Stoke Wood, Westhide;

Lauxania cylindricornis, F.; the Doward, Woolhope. L. elisae, Mg. L. aenea, Fln.

Balioptera tripunctata, Fln. B. combinata, L.

Opomyza germinationis, L.

abundant

Pelethophila lutea, Fln. P. flava, L.

Tetanura pallidiventris, Fln.; Stoke Wood, once, 21 June, 1906

Sepsis punctum, F. S. violacea, Mg. S. cynipsea, L.; Tarrington, &c. (Y.)

Nemopoda cylindrica, F.

Henicita annulipes, Mg.
Themira putris, L. T. superba, Hal. T. minor, Hal.

Saltella sphondylii, Schrk.

Piophila casei, L. P. atrata, F. P. varipes, Mg. P. affinis, Mg.; Tarrington (indoors), rare. P. nigriceps, Mg. P. latipes, Mg. P. pectoralis, Ztt.; widely distributed and not rare, in the autumn

Madiza glabra, Fln.

#### CYCLORRHAPHA (continued)

Anthomyza gracilis, Fln. A. unguicella, Ztt.; Leech Pool, common. A. flavipes, Ztt.; nitida, Mg.

Diastata punctum, Mg. D. nigricornis, Lw. D. inornata, Lw.; widely distributed and common. D. unipunctata, Ztt. D. costata, Mg.; Woolhope, scarce. D. nebulosa, Fln.; Haugh Wood and Dorstone, rare

Dichaeta caudata, Fln.

Notophila nigricornis, Stnh. (Y.). M. maculata, Stnh.; Clifford's Castle (Y.). N. venusta, Lw. (Y.). N. riparia, Mg. (Y.). N. cinerea, Fln. (Y.) N. dorsata, Stnh. (Y.)

Hydrellia thoracica, Hal. (Y.). H. modesta, Lw.; Tram Inn, Tarrington, &c. (Y.). H. flavicornis, Stnh.; Tram Inn (Y.). H. chrysostoma, Mg.; Tram Inn (Y.)

Philhygria stictica, Mg.; in woods, generally. P. flavipes, Fln.; Tarrington

Hyadina scutellata, Hal.; Stoke Wood, common. H. nitida, Mcq.; Clifford's Castle (Y.) Ochthera mantis, Deg.; Leech Pool

Parhydra fossarum, Hal. (Y.). P. quadripunctata, Mg. P. aquila, Fln. (Y.). P. coarctata, Fln. P. quinquemaculata, Beck.; Ross, Tarrington (Y.). P. litoralis, Mg.; Cusop (Y.)

Ilythea spilota, Hal.; Leech Pool, once, 27 August, 1902

Caenia palustris, Fln.

Scatella quadrata, Fln. S. sorbillans, Hal.; Tram Inn, once, 28 May, 1902. S. stagnalis, Fln.

Scatophila cribrata, Stnh.

Mosillus subsultans, F. Leucophenga maculata, Dup.; Haugh Wood, once,

25 September, 1906

Drosophila distincta, Egg.; confined to the trunk of a small ash-tree in Stoke Wood in the autumn of 1902, where it was discovered by Colonel Yerbury; it continued to be taken on this single tree for several weeks, but never made its appearance much before 4 p.m. D. transversa, Fln. D. phalerata, Mg. D. fenestrarum, Fln. D. confusa, Stag. D. histrio, Mg.; Mains Wood, once, 18 September, 1900. D. funebris, F. D. obscura, Fln. D. cameraria, Hal.

Noterophila glabra, Fln.

Stegana coleoptrata, Scop.; twice, Stoke Wood, 9 June, 1904, house 27 July, 1905

Meromyza variegata, Mg. M. laeta, Mg.; Clifford's Castle (Y.)

Anthracophaga strigula, F.; Stoke Wood, a few. A. frontosa, Mg.; Ledbury (Y.)

Centor myopinus, Lw.; generally (Y.). C. nudipes, Lw.; Woolhope (Y.)

Diplotoxa messoria, Fln. D. inconstans, Lw.; Clifford's Castle, Tram Inn (Y.)

Chlorops nasuta, Ztt.; meigenii, Lw.; Tarrington (Y.). C. taeniopus, Mg. C. speciosa, Mg. (Y.). C. rufina, Ztt. (Y.). C. hypostigma, Ztt.; Tarrington (Y.). C. planifrons; Tram Inn, 29 May, 1902 (Y.)

Oscinis albiseta, Mg. (Y.) O. maura, Fln. (Y.). O.

frit, L. Siphonella laevigata, Fln.

Elachyptera cornuta, Fln.

Cacoxenus indagator, Lw.; indoors, or on old walls

#### CYCLORRHAPHA (continued)

Phyllomyza securicornis, Fln.; Ross, 19 June, 1902

Agromyza grossicornis, Ztt.; generally (Y.)

Liomyza laevigata, Mg.; Tarrington, once, 26 August, 1902 (Y.)

Leucopsis griseola, Fln.

Ochthiphila polystigma, Mg. O. juncorum, Fln. O. aridella, Fln. O. fasciata, Lw.; Cusop Dingle, not rare

Phytomyza terminalis, Mg.; analis, Ztt.; Clifford Castle, 27 August, 1902 (Y.). P. zetterstedtii, Schn.; Tram Inn, 29 May, 1902 (Y.). P. geniculata. Mcq.; Tarrington (Y.)

Astia amaena, Mg.; Tram Inn (Y.)

Borborus nitidus, Mg. B. notabilis, Coll.; Cusop Dingle, a female, 11 June, 1902. B. niger, Mg.; Cusop Dingle, Woolhope, not uncommon. B. suillorum, Hall. B. roseri, Rud. B. pallifrons, Fln. B. longipennis, Hal. B. vitripennis, Mg. B. sordidus, Ztt. B. equinus, B. nigrifemoratus, Mcq. B. geniculatus, Fln.

Sphaerocera subsultans, F. S. monilis, Hal.; Woolhope, not common. S. vaporariorum, Hal. S.

pusilla, Fln.

Limosina lugubris, Hal. L acutangula, Ztt. L. ferruginata, Stnh. L. fontinalis, Fln. roralis, Rnd.; Woolhope, not common. L. limosa, Fln. L. pumilio, Mg. L. flaviceps, Stnh.; Black Mountain, Woolhope, scarce. L. sylvatica, Mg. L. curtiventris, Stnh. L. ochripes, Mg. L. scutellaris, Hal. L. clunipes, L. heteroneura, Hal. L. crassimana, Hal. L. quissquilia, Hal.; Woolhope, common. L. fungicola, Hal. L. spinipennis, Hal. L. mirabilis, Coll.; Tarrington, scarce. L. minutissima, Ztt. S. nigerrima, Hal. L. melania, Hal.

Conicera atra, Mg. C. similis, Hal.; not so common

as the preceding

Platyphora lubbocki, Verr. A single specimen, Woolhope, 6 July, 1904. Verrall in his original description says Cubital vein (second thick vein) simple; but in the Woolhope insect the vein is forked, the branch lying about midway between the first and second thick veins. It is, however, very fine, and probably was quite invisible under the conditions (gummed down on card) in which Mr. Verrall examined his insect. The foretarsi are of a peculiar pointed shape, the metatarsi being nearly as wide as the tibiae, and the succeeding joints gradually narrowing down to the strikingly slender end Becker includes it among the genera without ocelli-by an oversight, however, for Verrall distinctly mentions the presence of these organs. The original specimen, bred by Sir John Lubbock (now Lord Avebury), has unfortunately been lost

Gymnophora arcuata, Mg.

Trineura aterrima, F. T. velutina, Mg. T. stictica, Mg.

Phora palposa, Ztt.; Stoke Wood, a male, 29 October, 1903. P. trinervis, Beck. P. vitrea, Wood. P. perennis, Mg. P. luteifemorata, Wood. P. lugubris, Mg. P. opaca, Mg.; nigricornis, Egg. P. sublugubris, Wood. P. unispinosa,

# INSECTS

### CYCLORRHAPHA (continued)

Ztt. P. nudipalpis, Beck. P. curvinervis, Beck. P. thoracica, Mg. P. urbana, Mg. P. fennica, Beck. P. concinna, Mg. P. crassicornis, Mg. P. abdominalis, Fln. P. bergenstammi, Mik.; Stoke Wood, a single female, Stoke Wood, 28 July, 1905. P. dorsalis, Beck.; a pair, Woolhope, 28 May, 1898. P. maculata, Mg. P. domestica, Wood; Tarrington and Ledbury, always indoors. P. erythronota, Strobl. P. mordellaria, Fln.; twice only; Woolhope, 1 July, 1903, Stoke Wood, 26 June, 1906. P. incrassata, Mg. P. carinifrons, Ztt. P. citreiformis, Beck.; Woolhope, common. P. vitripennis, Mg.; Woolhope, scarce. P. umbrimargo, Beck.; abundant and generally distributed. P. nudipes, Beck.; Woolhope, Westhide. P. picta,

# CYCLORRHAPHA (continued)

Lehm.; Stoke Wood, scarce. P. girandii, Egg.; Woolhope, rather scarce. P. projecta, Beck.; widely distributed, but not common. P. ruficornis, Mg.; very common. P. fasciata, Fln. P. pygmaea, Ztt. P. flava. P. ciliata, Ztt. P. minor, Ztt. P. lutea, Mg. P. melanocephala, v. Ros. P. costalis, v. Ros.; Tram Inn, once, 26 June, 1905. P. rufipes, Mg. P. pulicaria, Fln. P. humeralis, Ztt. P. sordida, Ztt.; twice; Stoke Wood, 15 October, 1906, Ashperton Park, 24 October, 1906

Metopina galeata, Hal.
Ornithomyia avicularia, L.
Stenopteryx hirundinis, L.
Lipoptena cervi, L.
Melophagus ovinus, L.

# ADDENDA

Since the above list was in print, the following additional species of Coleoptera have been taken in the courty, in the course of two or three weeks' collecting, by Mr. J. R. le B. Tomlin.

#### CARABIDAE

Pterostichus cupreus, L.
Bembidium articulatum, Panz.
— monticola, Sturm.
Lebia chlorocephala, var. chrysocephala, Mots.

#### DYTISCIDAE

Haliplus ruficollis, De G. Ilybius fuliginosus, F. Dytiscus punctulatus, F.

#### HYDROPHILIDAE

Anacaena globulus, Payk.
Helochares lividus, Först.
Chaetarthria seminulum, Payk.
Helophorus aquaticus, L.
— nubilus, F.
Octhebius bicolon, Germ.
Sphaeridium bipustulatum, F.
Cercyon haemorrhous, Gyll.
— quisquilius, L.
— pygmaeus, Ill.

#### STAPHYLINIDAE

Oxypoda longiuscula, Grav. In moles' nests, W. Malvern
Homalota trinotata, Kr. In moles' nests, W. Malvern
— ravilla, Er. In moles' nests, W. Malvern
— paradoxa, Rey. In moles' nests, W. Malvern
Deinopsis erosa, Steph.
Conosoma pubescens, Grav.
— lividum, Er.
Tachyporus pusillus, Grav.
Cilea silphoides, L.

#### STAPHYLINIDAE (cont.)

Tachinus marginellus, F.

Bolitobius atricapillus, F. Mycetoporus splendidus, Grav. Heterothops dissimilis, Grav. Quedius fuliginosus, Grav. - auricomus, Kies. - boops, Grav. Philonthus decorus, Grav. - varius, Gyll. - fimetarius, Grav. - quisquiliarius, Gyll. - varians, Payk. - cruentatus, Gmel. - trossulus, Nord. Xantholinus glabratus, Grav. - punctulatus, Payk. Baptolinus alternans, Grav. Lathrobium brunnipes, F. Stilicus affinis, Er. Sunius angustatus, Payk. Stenus guynemeri, Duv. - brunnipes, Steph. — tarsalis, Ljun. Oxytelus nitidulus, Grav. - tetracarinatus, Block. Trogophloeus rivularis, Mots. - corticinus, Grav. Syntomium aeneum, Müll. Lesteva pubescens, Mann.

# LEPTINIDAE

Homalium striatum, Grav.

Leptinus testaceus, Müll.

#### SILPHIDAE

Colenis dentipes, Gyll. Choleva Watsoni, Spence Ptomaphagus sericeus, Panz.

#### TRICHOPTERYGIDAE

Ptilium Spencei, All.

#### CORYLOPHIDAE

Sericoderus lateralis, Gyll.

#### **PHALACRIDAE**

Olibrus aeneus, F. Stilbus testaceus, Panz.

## COCCINELLIDAE

Scymnus haemorrhoidalis, Herbst

#### **EROTYLIDAE**

Dacne humeralis, F.

#### COLYDIIDAE

Cerylon histeroides, F.

#### HISTERIDAE

Carcinops minima, Aubé

#### MICROPEPLIDAE

Micropeplus tesserula, Curt.

#### NITIDULIDAE

Brachypterus pubescens, Er.

— urticae, F.
Cercus rufilabris, Latr.
Nitidula bipustulata, L.
Omosita colon, L.

— discoidea, F.

#### LATHRIDIIDAE

Lathridius lardarius, De G Coninomus nodifer, West. Enicmus transversus, Ol. Corticaria elongata, Gyll. Melanophthalma gibbosa, Herbst. - fuscula, Hum.

#### **CRYPTOPHAGIDAE**

Antherophagus pallens, Ol. Atomaria fimetarii, Herbst. - atricapilla, Steph. - berolinensis, Kr.

#### SCAPHIDIIDAE

Scaphisoma agarici num, L.

#### **PARNIDAE**

Parnus prolifericornis, F.

#### HETEROCERIDAE

Heterocerus marginatus, F.

#### LUCANIDAE

Sinodendron cylindricum, L.

#### SCARABAEIDAE

Aphodius fimetarius, L. â ater, De G. - punctato-sulcatus, St. - contaminatus, Herbst. Melolontha vulgaris, F.

#### **EUCNEMIDAE**

Throscus dermestoides, L.

#### ELATERIDAE

Cryptohypnus riparius, F.

#### DASCILLIDAE

Cyphon nitidulus, Thunb.

#### TELEPHORIDAE

Rhagonycha fuscicornis, Ol. Malthinus balteatus, Suff. Malthodes guttifer, Kies.

#### CISSIDAE

Cis festivus, Panz.

#### **PTINIDAE**

Dryophilus pusillus, Gyll. Ernobius mollis, L.

#### BRUCHIDAE

Bruchus cisti, F.

#### CHRYSOMELIDAE

Chrysomela staphylaea, L. Prasocuris junci, Brahm. Longitarsus suturellus, Duft. - atricillus, L. - flavicornis, Steph. - pusillus, Gyll. - laevis, Duft.

Cryptocephalus moraei, L.

Phyllotreta exclamationis, Thunb. Aphthona atrocaerulea, Steph. Apteropeda orbiculata, Marsh Psylliodes napi, Koch.

#### TENEBRIONIDAE

Scaphidema metallicum, F.

#### MORDELLIDAE

Mordellistena humeralis, L. Anaspis geoffroyi, Müll. Apion subulatum, Kirby.

- onopordi, Kirby - hookeri, Kirby

- ulicis, Först.

— radiolus, Kirby - rufirostre, F.

-- viciae, Payk. - difforme, Germ.

- punctigerum, Payk. - ononis, Kirby

- tenue, Kirby - hydrolapathi, Kirby

Otiorrhynchus muscorum, Bris. Strophosomus retusus, Marsh Liophloeus nubilus, F.

Sitones ononiis, Sharp Polydrusus pterygomalis, Boh.

- cervinus, L.

Phyllobius maculicornis, Germ.

— pomonae, Ol.

Hypera variabilis, Herbst. Liosoma oblongulum, Boh. Orchestes fagi, L.

Erirrhinus acridulus, L. Anoplus plantaris, Naez. Miccotrogus picirostris, F. Gymnetron beccabungae, L. Anthonomus pedicularius, L.

— rubi, Herbst. Coeliodes quercus, F.

Ceuthorrhynchus cochleariae, Gyll.

- erysimi, F.

- pleurostigma, Marsh (sulcicollis, Gyll.)

Ceuthorrhynchidius pyrrorhyncus, Marsh

melanarius, Steph.

Balaninus salicivorus, Payk. (bras-

sicae, Brit. Cat.)

Magdalis armigera, Fourc. (atramentaria, Marsh)

Of the above beetles perhaps the most interesting are Oxypoda longiuscula and Homalota paradoxa, both from moles' nests.

Among the Orthoptera Mr. Tomlin has taken Labia minor, and Forficula auricularia must also be recorded.

# SPIDERS

# ARACHNIDA

Spiders and Harvestmen

The materials placed in my hands for the preparation of the subjoined list have been in one respect very fairly satisfactory, that is in regard to the kind efforts of the only two gentlemen who have found themselves able to contribute materials. These materials, collected in I presume for the most part, two localities only, give evidence of a rich field for at least one order of Arachnids (Araneidea true spiders) the result being ninety-five species. These are mostly, as a matter of course, among the common and generally distributed known British spiders. Some, however, among the more minute forms, show that a little more expert and close collecting would very soon double or treble the number of species met with. The county of Hereford itself also, by its nature and position, would lead one to expect it to be a rich locality for Araneidea. The districts in which the collections, or a greater part of them, were made, were those of Ewyas Harold and the banks of the Monnow, practically, I believe, one district, and Woolhope. The collectors are Mr. H. E. Jones of Ewyas Harold, and Mr. John H. Wood of Tarrington, near Hereford. Six species only have been communicated to me by anyone else (Dr. A. Randell Jackson), from near Hereford. It is evident that only ninety-five species of spiders, out of nearly or about 550 known British forms, and four of Phalangidea or Harvestmen out of twenty-four British species, are not an adequate representation of the Arachnids of a county like Hereford. The spiders (Araneidea) however give a fair idea of the commoner and more obvious and widely distributed species, with a few of the rarer and more local forms, such as Protadia subnigra, Cambridge, Theridion impressum, C. L. Koch, Entelecara acuminata, Wider, Peponocranium ludicrum, Cambridge, and Tetragnatha obtusa, C. L. Koch. My best thanks are due to the gentlemen I have named for their hearty and kind efforts to supply the hitherto absolute dearth of information as to the Arachnidous fauna of the county. For all information respecting systematic arrangement, nomenclature, synonyms, descriptions, and other particulars of the Arachnids below, reference may be made to the following English publications.

A History of the Spiders of Great Britain and Ireland, by John Blackwall (Ray Society, 1861-64). Spiders of Dorset (with an appendix containing short descriptions of those British species not yet found in Dorset) by the Rev. O. Pickard-Cambridge, M.A., published by the Dorset Natural History and Antiquarian Field Club, 1879-81. Papers on 'Spiders and other British Arachnids.' by the Rev. O. Pickard-Cambridge, M.A., etc. (being papers supplementary to 'Spiders of Dorset,' published in the Proceedings of the Dorset Natural History and Antiquarian Field Club, 1882-1907). List of British and Irish Spiders, by the Rev. O. Pickard-Cambridge, M.A., F.R.S., etc, pp. 1-84, published by Sime & Co., Dorchester, Dorset, 1900. 'Monograph on the British species of Phalangidea or Harvestmen,' by R. H. Meade, F.R.C.S., in Annals and Magazine of Natural History, June, 1855. 'Monograph on the British Species of Phalangidea or Harvestmen,' by the Rev. O. Pickard-Cambridge, M.A., F.R.S., C.M.Z.S., etc., in *Proceedings of the Dorset Natural History and Antiquarian Field Club*, xi (1890), 'Monograph on the British Species of Chernetidea or False Scorpions,' by the Rev. O. Pickard-Cambridge, M.A., F.R.S., C.M.Z.S., etc., in *Proceed-*

ings of the Dorset Natural History and Antiquarian Field Club, xiii (1892).

## ARANEIDEA

True Spiders

#### DYSDERIDAE

#### DRASSIDAE

HARPACTES, Templeton Harpactes hombergii, Scopoli. Ewyas Harold, near Hereford (H. E. Jones) Segestria, Latreille

Segestria senoculata, Linnaeus. Ewyas Harold (H. E. J.)

Drassus, Walckenaer Drassus cupreus, Blackwall. Ewyas Harold (H. E. J.) CLUBIONA, Latreille

Clubiona terrestris, Westring. Ewyas Harold (H. E. J.); banks of the Monnow (John H. Wood)

CLUBIONA, Latreille

Clubiona reclusa, Cambridge. Ewyas Harold (H. E. I.)

- lutescens, Westring. Ewyas Harold (H. E. J.) - pallidula, Clerck. Ewyas Harold (H. E. J.);

banks of the Monnow (J. H. W.)

brevipes, Blackwall.
comta, C. L. Koch.
Ewyas Harold (H. E. J.)
Ewyas Harold (H. E. J.)

- corticalis, Walckenaer. Ewyas Harold (H. E. J ); near Hereford (Dr. A. Randell Jackson)

CHIRACANTHIUM, C. L. Koch

Chiracanthium carnifex, Fabricius. Ewyas Harold (H. E. J.)

#### DICTYNIDAE

DICTYNA, Sundevall

Dictyna arundinacea, Linnaeus. Ewyas Harold (H. E. J.); banks of the Monnow (J. H. W.)

- uncinata, Westring. Ewyas Harold (H. E. J.); banks of the Monnow (J. H. W.)

- latens, Fabricius. Ewyas Harold (H. E. J.)

PROTADIA, Simon

Protadia subnigra, Cambridge. Banks of the Monnow (J. H. W.)

LETHIA, Menge

Lethia humilis, Blackwall. Woolhope (J. H. W.); Ewyas Harold (H. E. J.)

AMAUROBIUS, C. L. Koch

Amaurobius ferox, C. L. Koch. Ewyas Harold (H. E. J.)

— fenestralis, Stroem. Ewyas Harold (H. E. J.)

#### **AGELENIDAE**

Tegenaria, Latreille

Tegenaria derhamii, Scopoli. Ewyas Harold (H. E. J.)

- silvestris, C. L. Koch. Woolhope (J. H. W.)

## **HAHNIIDAE**

HAHNIA, C. L. Koch

Hahnia nava, Blackwall. Ewyas Harold (H. E. J.)

#### THERIDIIDAE

Episinus, Walckenaer

Episinus truncatus, Walckenaer. Ewyas Harold (H. E. J.)

THERIDION, Walckenaer

Theridion formosum, Clerck. Woolhope (J. H. W.) - sisyphium, Clerck. Ewyas Harold (H. E. J.);

Woolhope (J. H. W.)

- impressum, C. L. Koch. Ewyas Harold (H. E. J.) A rare spider, but perhaps overlooked owing to its close resemblance to the common Theridion sisyphium, Clerck.

- vittatum, C. L. Koch. Ewyas Harold (H. E. J.);

Woolhope (J. H. W.)
nticulatum, Walckenaer. Ewyas Harold - denticulatum, (H. E. J.)

- varians, Hahn. Ewyas Harold (H. E. J.)

Linnaeus. -- bimaculatum, Ewyas Harold (H. E. J.)

- pallens, Blackwall. Ewyas Harold (H. E. J.); banks of the Monnow (J. H. W.)

PHYLLONETHIS, Thorell

Phyllonethis lineata, Clerck. Ewvas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

STEATODA, Sundevall

Steatoda bipunctata, Linnaeus. Ewyas Harold (H. E. J.)

BOLYPHANTES, Menge

Woolhope Bolyphantes bucculentus, Clerck. (J. H. W.)

LINYPHIA, Latreille ad partem, Blackwall and Cambridge ad partem, and Neriene Blackwall

Linyphia insignis, Blackwall. Banks of the Monnow (J. H. W.)

— montana, Clerck. Ewyas Harold (H. E. J.)

- triangularis, Clerck. Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

- peltata, Wider. Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

- hortensis, Sundevall. Banks of the Monnow and Woolhope (J. H. W.)

- clathrata, Sundevall. Ewyas Harold (H. E. J.)

LABULLA, Simon

Labulla thoracica, Wider. Ewyas Harold (H. E. J.)

LEPTYPHANTES, Menge

Leptyphantes blackwallii, Kulczynski. Ewyas Harold (H. E. J.)

- obscurus, Blackwall. Ewyas Harold (H. E. J.)

— tenuis, Blackwall. Ewyas Harold (H. E. J.); Woolhope (J. H. W.)

BATHYPHANTES, Menge

Bathyphantes dorsalis, Wider. Ewyas Harold (H. E. J.)

- nigrinus, Westring. Near Hereford (A. R. J.)

MICRONETA, Menge

Microneta rurestris, C. L. Koch. Banks of the Monnow (J. H. W.)

Gongylidium, Menge

Gongylidium rufipes, Sundevall. Ewyas Harold (H. E. J.)

- retusum, Westring. Near Hereford (A. R. J.)

- dentatum, Wider. Ewyas Harold (H. E. J.) and Woolhope (J. H. W.)

NERIENE, Blackwall ad partem

Neriene rubens, Blackwall. Ewyas Harold (H. E. J.) - rubella, Blackwall. Woolhope (J. H. W.)

ENIDIA, F. P. Smith

Enidia cornuta, Blackwall. Ewyas Harold (H. E. J.)

Entelecara, Simon

Entelecara acuminata, Wider. Ewyas Harold (H. E. J.)

Peponocranium, Simon

Peponocranium ludicrum, Cambridge. Ewyas Harold (H. E. J.)

Cornicularia, Menge

Cornicularia cuspidata, Blackwall. Ewyas Harold (H. E. J.)

- unicornis, Cambridge. Ewyas Harold (H. E. J.)

# SPIDERS

#### MIMETIDAE

Ero, C. L. Koch

Ero thoracica, Wider. Ewyas Harold (H. E. J.)

#### **EPEIRIDAE**

TETRAGNATHA, Latreille

Tetragnatha extensa, Linn. Banks of the Monnow (J. H. W.)

- solandrii, Scopoli. Ewyas Harold (H. E. J.) and banks of the Monnow (J. H. W.)

- obtusa, C. L. Koch. Ewyas Harold (H. E. J.) and banks of the Monnow (J. H. W.)

Pachygnatha, Sundevall

Pachygnatha degeerii, Sundevall. Banks of the Monnow (J. H. W.)

- clerckii, Sundevall. Ewyas Harold (H. E. J.)

Cyclosa, Menge

Cyclosa conica, Pallas. Ewyas Harold (H. E. J.)

META, C. L. Koch

Meta segmentata, Clerck. Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

- merianae, Scopoli. Ewyas Harold (H. E. J.)

ZILLA, C. L. Koch

Zilla x-notata, Clerck. Ewyas Harold (H. E. J.) and Woolhope (J. H. W.)

Ewyas Harold (H. E. J.) — atrica, C. L. Koch.

EPEIRA, Walckenaer

Epeira gibbosa, Walck. Ewyas Harold (H. E. J.) and banks of the Monnow (J. H. W.)

Ewyas Harold (H. E. J.); - diademata, Clerck. Banks of the Monnow and Woolhope (J. H. W.)

— cucurbitina, Clerck. Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

- triguttata, Fabricius. Ewyas Harold (H. E. J.) and banks of the Monnow (J. H. W.)

- quadrata, Clerck. Ewyas Harold (H. E. J.)

- cornuta, Clerck. Banks of the Monnow (J. H. W.)

#### THOMISIDAE

MISUMENA, Simon

Misumena vatia, Clerck. Banks of the Monnow and Woolhope (J. H. W.)

XYSTICUS, C. L. Koch

Xysticus cristatus, Clerck. Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J.H.W.)

- kochii, Thor. Banks of the Monnow (J. H. W.)

— pini, C. L. Koch. Ewyas Harold (H. E. J.)
— lanio, C. L. Koch. Ewyas Harold (H. E. J.)
— erraticus, Blackwall. Ewyas Harold (H. E. J.)

- ulmi, Hahn. Banks of the Monnow and Woolhope (J. H. W.)

Philodromus, Walckenaer

Philodromus dispar, Walck. Ewyas Harold (H. E. J.) and banks of the Monnow (J. H. W.)

- aureolus, Clerck. Ewyas Harold (H. E. J.) and banks of the Monnow (J. H. W.)

#### **PISAURIDAE**

PISAURA, Simon

Pisaura mirabilis, Clerck. Near Hereford (A. R. J.); Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

#### LYCOSIDAE

PIRATA, Sundevall

Pirata latitans, Blackwall. Ewyas Harold (H. E. J.)

TROCHOSA, C. L. Koch

Trochosa ruricola, De Geer. Near Hereford (A. R. J.); Ewyas Harold (H. E. J.)

Lycosa, Latreille ad partem

Lycosa amentata, Clerck. Near Hereford (A. R. J.); Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

— nigriceps, Thorell. Ewyas Harold (H. E. J.)

- proxima, C. L. Koch. Banks of the Monnow (J. H. W.)

- pullata, Clerck. Ewyas Harold (H. E. J.); banks of the Monnow and Woolhope (J. H. W.)

- monticola, C. L. Koch. Woolhope (J. H. W.)

#### SALTICIDAE

Ерівсемим, Hentz

Epiblemum cingulatum, Panzer. Woolhope (J. H. W.)

HELIOPHANUS, C. L. Koch

Heliophanus flavipes, C. L. Koch. (J. H. W.) Woolhope

EUOPHRYS, C. L. Koch

Euophrys frontalis, C. L. Koch. (J. H. W.) Woolhope

HASARIUS, Simon

Hasarius fakatus, Clerck. Woolhope (J. H. W.)

## PHALANGIDEA

#### Harvestmen

## **PHALANGIIDAE**

Sclerosoma, Lucas

Sclerosoma quadridentatum, Cuvier. Ewyas Harold (H. E. J.). A rare and local species.

Phalangium, Linnaeus

Phalangium opilio, Linnaeus. Ewyas Harold (H. E. J.)

- saxatile, C. L. Koch. Ewyas Harold (H. E. J.)

OLIGOLOPHUS, C. L. Koch

Oligolophus agrestis, Meade. Ewyas Harold (H. E. J.)

No representative of the order Chernetidea, or false scorpions occurred in the collections made for me in Herefordshire, though without a doubt some of the recorded British species are certain to occur there.

# CRUSTACEANS

In this county carcinology has been treated as the Cinderella of the sciences. How absolutely neglect and indifference have been its portion, the records of the famous Woolhope Club bear witness. While those transactions teem with the virtues and vices of fungi, the problems and identifications of fossils, the figures of noble trees, and a wealth of valuable information in general, the living crustaceans of Herefordshire scarcely engage a passing Thus, in 1869, the president for that year, Mr. James Rankin, in his address on the 'Distribution of Animals,' when discussing the Annulosa, says, 'In this sub-kingdom we have examples of both terrestrial and aquatic animals: amongst the former are the spiders, insects, and earthworms; and amongst the latter the crustaceans, most ringed worms, the star-fishes, &c.'1 In this arrangement he overlooked or put out of sight the fact that in his own county there were plenty of land crustaceans, the Isopoda terrestria, which have had their true place in classification disguised by the nickname of woodlice. In 1881 the Rev. A Ley read a paper on the 'Pondweeds of Herefordshire,' in which he says, 'Considering the complete absence of all that can be called fen, or fen ditches, and the comparatively small area of pond or canal in the county, I do not consider that Herefordshire is badly represented in pondweeds.' It was not the province of a botanist to discuss the fauna of ponds, but it should not be forgotten that several of the entomostracan Crustacea find in very small and weedy pieces of water their favourite habitat.

Of the higher Malacostraca we have in England only one truly inland species, the river crayfish, properly called Potamobius pallipes (Lereboullet). This occurs in Herefordshire, and is in fact once mentioned in the Woolhope Transactions.8 For the occurrence of the crayfish we have the more ancient testimony of John Duncomb, M.A., in his 'Collections towards the History and Antiquities of the County of Hereford.' He informs us that 'trout, gudgeons, eels, and crayfish are taken in the Munnow.' In addition to this watercourse he notes the Wye, Lugg, Arrow, Frome, Leadon or Leddon, and the Teme or Team with its pearl-bearing muscles or mussels, and then observes that 'a variety of inferior brooks come in aid of the rivers and streams noticed above; of which the chief are the Garran and the Gamar, abounding in crayfish, which are in season during the summer.' 5 From this

<sup>&</sup>lt;sup>1</sup> Trans. Woolhope Nat. Field Club, 1869 (1870), p. 18.

<sup>&</sup>lt;sup>5</sup> Ibid. 1881-2 (1888). The date of publication was late owing to prolonged loss of the MS. <sup>3</sup> Ibid. 1895, 1896, 1897 (1898), p. 296.

<sup>&</sup>lt;sup>4</sup> Op. cit. vol. i (1804), p. 166. <sup>5</sup> Ibid. 167.

# **CRUSTACEANS**

writer the following quotations may also be made, because from the presence of the fishes which he names may be inferred the existence in Herefordshire waters of the crustacean parasites with which those fishes are wont to be infested. He says that 'salmons were formerly sold at one penny per pound in Hereford, but now bring sixpence to half a crown, according to the time, and other circumstances.' 6 'Other sea-fish occasionally taken in the Wye, are shad, flounders, lamperns, and lampreys; but none of these are met with frequently or in great abundance.'7 Besides these, the Wye has the usual kinds of river-fish, including pike, grayling, trout, perch, eels and gudgeons.'8 It is well known that the salmon arriving from the sea brings with it a different kind of parasite from that with which it descends a river when returning seaward. The two species, however unlike in appearance, nevertheless belong to the same order, the Copepoda. Since migration into fresh water relieves the salmon from its marine encumbrance, Lepeophtheirus salmonis (Kröyer), and a return to salt water drives off the Lernaeopoda salmonea (Linn.) which attacks it in the river, one may wonder whether these aquatic exchanges were originally induced by the pinpricks of the little crustaceans. There are no statistics available to tell us whether the parasites are becoming more eurybaline—that is, capable like the salmon itself of enduring wide differences in the salinity of the water they inhabit. If Duncomb, for instance, had been able to tell us that the Lepeophtheirus was never found on the salmon beyond the limits of brackish water, and the modern fisherman could affirm that it was now often found in water absolutely fresh, a suspicion would be justified that the entomostracan was extending its capacity for migration to match that of its host. Shads, like salmon, pass from the sea up rivers for spawning. In the fresh water they are said to improve in flavour. With regard to the Allis Shad, Alosa vulgaris, Yarrell, Couch remarks that it is very uncommon to find them so far up as Worcester.9 The Twait Shad, A. finta (Cuvier), he says, is taken in the Severn at the same time with the Allis.10 From the gills of this latter species Mr. Bassett-Smith records the copepod Anchorella emarginata, Kröyer. 11 Concerning the flounder, Pleuronectes flesus, Linn., Couch observes that 'fresh water seems at times to have a particular charm for it, as it occasionally wanders upward in the deeper rivers to a considerable distance, and there it assumes a new appearance as regards colour, as well as that it is said to suffer loss in the quality of its flesh, but it seems doubtful whether it ever breeds in fresh water.'12 The Pleuronectidae are apt to be infested by some species of the copepod genus Chondracanthus. De la Roche. It would be interesting to ascertain whether the flounder carries such parasites with it into fresh water, and by so doing either causes them to quit their hold or to perish. Among river fishes the persecuting pike, Esox lucius, Linn., is itself exposed to the attacks of the parasitic Copepoda Ergasilus sieboldii, Nordmann, and Caligus lacustris, Steenstrup and Lütken. The latter is said also to frequent the less formidable perch, Perca fluviatilis, Linn., and this fish is subject to the visitation of two other species of the same group, Lernaeocera cyprinacea, Linn., and Achtheres percarum, Nordmann.13

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<sup>6</sup> Op. cit. vol. i (1804), p. 161. <sup>7</sup> Ibid. 163. <sup>8</sup> Ibid. 164. <sup>10</sup> Ibid. 122. <sup>11</sup> Proc. Zool. Soc. London, 1899, p. 503. <sup>13</sup> Ibid. (1899), pp. 443, 448, 480, 498.
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Without further lingering on more or less conjectural or inferential members of the fauna, we may return to the consideration of those which have direct testimony guaranteeing their occurrence in this county. Though the number of observed species is still very small, both the principal divisions of the crustacean class, the Malacostraca and Entomostraca, are moderately represented. It is true that of stalk-eyed malacostracans there is only a single But, so far as that is concerned, none of our strictly inland counties are any better off. Moreover there is this consolation, that the crayfish is itself an admirable example of the class for the purposes of the student. It is easily procurable and tenacious of life, so that its habits in captivity can be observed at leisure. As a specimen it is convenient for handling and dissection, the parts being neither awkwardly large nor microscopically small. With a view to comparative anatomy the want of nearly allied species can be easily remedied. Crab and lobster, prawn and shrimp, though not living within these borders, can without difficulty be obtained from elsewhere. Not only the lobster, but also the other apparently very different forms, when carefully examined will show a long series of agreements in their succession of articulated appendages and in the other structures by which their vital activities are maintained. It would be out of place here to discriminate the genera included under these popular and familiar names, but it is desirable to note some of the many features which they have in common. They are all stalk-eyedthat is, their paired organs of vision are seated on movably articulated peduncles. In some crustaceans, though not in any of the common eatable species just mentioned, the eye-stalks attain a considerable elongation. This and some other circumstances make it probable that the eye-stalks of the decapod Malacostraca are comparable in character and origin with the remaining pairs of appendages, nineteen in number, which these organisms have at their disposal. Theoretically each pair belongs to a separate body segment, and the theory is undoubtedly sound, although there is no species known in which the separateness of the segments is clearly maintained from one end of the body to the other. Also there is a twenty-first segment, called the telson, which is perhaps potentially appendage-bearing, although it never has a distinctly separated pair of appendages. No malacostracan, be it observed, has more than a score of such pairs, and oftentimes some of the score are The complete number is small compared with that occurring in some of the centipedes, but in the latter group the manifold repetition is for the most part of limbs alike in appearance and function. Here, on the contrary, adaptation to a great variety of purposes and conditions has given rise to extreme diversity of form.

The normal malacostracan has two pairs of antennae, belonging respectively to the second and third segments of the body. Associated with the first of these pairs is the sense of hearing. The seat of the olfactory sense is not quite so definitely determined. The sense of touch is, no doubt, more or less generally diffused. The sense of taste, if disjoined from that of smell, may not unnaturally be sought among the more delicate of the mouth-organs. The mandibles, belonging to the fourth segment, are often massive, with cutting or piercing capacity, but their stronger processes are frequently attended by slender spines and setae which must have some meaning. The mandibles meet between the upper and lower lips, which form the entrance to the

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digestive cavity. They are succeeded by the first and second maxillae, commonly of slender construction, and furnished usually with a variety of spines and setae, some of which no doubt take a kindly interest in the animal's food. It is difficult to understand how these creatures could determine which part of the world to devour, without some special means of adding zest to appetite by a discrimination of flavours. An observer who starts with the conviction that nature makes nothing in vain will find a fascinating employment in noting the minuter accessories of a crustacean To determine the purposes of all the glassy teeth and hooks, cleft spines and serrate needles, cylindrical filaments and tapering hairs, rigid bristles and softly waving plumes, is a task that requires great nicety of observation and no small ingenuity of logical inference. Some of these purposes, no doubt, are tolerably obvious. Many have been already ascertained. But there is always the chance of some new discovery or improved interpretation, and again and again the embarrassing problem recurs, to explain why it is that one species can dispense with some piece of apparatus which is the prominent furniture of another.

The maxillae are followed by the first maxillipeds, appertaining to the seventh body segment. At this point it will be convenient to diverge for the moment from the podophthalmous decapod Potamobius, or, in other words, the stalk-eved ten-footed crayfish, in order to introduce to the reader the edriophthalmous tetradecapod Malacostraca of Herefordshire. These sessileeved fourteen-footed orders are not known to comprise, within our limits, more than a single species of Amphipoda, or more than a single aquatic species of the Isopoda. More than one, however, of the terrestrial isopods have been recently added to the fauna. In these groups the eyes, when present, being seated immovably beneath the general integument of the head, show no trace or sign of belonging to an independent ophthalmic segment. Otherwise amphipods and isopods like the crayfish have, in successive pairs, first and second antennae, mandibles, first and second maxillae, and maxilli-Then a striking difference occurs. In the crayfish the eighth and ninth segments of the body carry respectively the second and third maxillipeds, organs of the mouth, and to the succeeding five segments are allotted five pairs of legs. Above all this apparatus, from the eyes backward, is extended a great shield called the carapace, the cheeks of which enclose the respiratory organs attached to the bases of maxillipeds and the succeeding limbs. When this arrangement is compared with the anatomy of the sessileeyed groups, though the considerable distinctions at first seize the attention, it is in the end the underlying agreement that forms the chief point of interest.

Among the Amphipods the family Gammaridae may be considered typical. Among the Gammaridae Gammarus is the typical genus. In that genus G. pulex (Linn.) is separated from the type species only by small distinctions of form, and the biological difference that it lives in fresh water instead of salt. That it is found in Herefordshire is nothing to boast of, since there is certainly no county in which it is not found. It is scarcely necessary to specify that it has been taken from the River Teme, because it would probably be difficult to find a river or trickling rivulet or pond from which it could not be taken. There is, therefore, little or no difficulty in obtaining

The difficulty with the inexperienced will rather be to imagine or believe that this little sliddering creature, about half an inch long, is a poor relation, but a relation not so very distant, of the lordly lobster, and a fit object of comparison with its fresh-water neighbour, the river crayfish. Nevertheless, in all three the integument has the same chitinous foundation. the compound eyes are essentially similar, the number of segments beyond the ophthalmic frontal segment is identical, and the pairs of appendages throughout are strictly comparable. But in Gammarus the carapace stops short at the seventh segment, so that the seven succeeding segments are freely articulated. The first two of the seven carry appendages known respectively as the first and second gnathopods, corresponding with the second and third maxillipeds of the crayfish. Maxilliped, a word of Latin origin, and gnathopod. derived from the Greek, have precisely the same meaning, each signifying jaw-foot. Those who invented these terms wished to intimate that the appendages in question were leg-like structures modified to serve the mouth. The reason for using two terms, where one would have been enough, was The maxillipeds are all closely applied to the mouth, and formerly were not thought of as fulfilling other purposes than that of dealing with the But the gnathopods are in a more independent position than that which the maxillipeds commonly enjoy. While concerned as a rule in grasping prey and conveying portions of it to the mouth, they are evidently open to other employments. Normally in the Amphipoda they have some clawlike modification, expressed by the term subchelate, and occasionally they form regular chelipeds, more or less similar to those seen in the first three pairs of legs of the lobster and crayfish. Our own arms are no doubt leg-like structures modified to serve the mouth, but we refrain from calling them either maxillipeds or gnathopods, because they serve so many other purposes in addition to acting as jaw-feet. The five pairs of peraeopods or walking-legs in Gammarus pulex can easily be homologized with those of Potamobius pallipes, but none of them are chelate, and in spite of their name and their simple structure they do not enable the animal to walk on dry land. Like most but not all of their tribe, our fresh-water amphipods, owing to the lateral compression of their bodies, when out of water fall over on one side. Then, by ventral folding and quick unfolding of the tail part, they are able to make a sliding jerking progress not very conducive to speed or comfort. As in the crayfish, the tail part or pleon shows clearly the constituent seven segments, but here the terminal segment known as the telson is longitudinally divided instead of forming a single plate, as in *Potamobius*. The appendages also differ. In Gammarus the first three segments of the pleon carry pleopods, which, in accordance with their name, are true swimming-legs, while the following three segments carry uropods, literally tail-legs, which assist the animal in its jerking movements. Only the last of the six pairs are called uropods in the crayfish, and these with the telson form the powerful 'tailfan, by the flapping of which the animal can propel itself energetically through the water. The five pairs of appendages preceding the tail-fan are here all technically called pleopods, but their swimming power is degenerate, and the first two pairs in the male have been modified into sexual organs.

Asellus aquaticus (Linn.) is the only aquatic isopod found, or according to our present knowledge likely to be found, in this county. It shares with

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the two crustaceans already discussed the advantage of being extremely abun-Any little weedy brook will almost certainly supply it. In such a streamlet it occurs not far from the railway station of Berrington and Eye, and in a duck-pond of the same district. It differs from the other two species in that, though common in occurrence, in character it is rather uncommon. It cannot be regarded as an eminently representative species. There are, however, a goodly number of the Isopoda of which the same might be said, and notwithstanding its peculiarities Asellus shows some of the commoner characters with great distinctness. It has the dorso-ventrally flattened body which gives the Isopoda in general walking power so much superior to that of the laterally compressed Amphipoda. Its seven pairs of legs have a fair amount of that uniformity which suggested the title of the order, a title far from being appropriate in all the sub-divisions. Minute comparison of the cephalic compartment or head of Gammarus with that of Asellus will show that from the eyes to the first maxillipeds the amphipod and the isopod are in rather close agreement. Also the middle body or peraeon with seven articulated segments, each carrying a pair of similarly jointed limbs, continues the resemblance. But a critical inspection of this part reveals a divergence between the two orders of no trifling importance. The amphipod has at the base of the second gnathopods and of the first four pairs of peraeopods freelyhanging vesicles, or branchial sacs, answering to the more complicated and more numerous branchiae of the crayfish. But these are entirely wanting in the isopod. There the respiratory function is transferred to the pleopods. To correspond with this difference the lateral openings of the heart, instead of being placed in the front part of the peraeon, are withdrawn to the rear. Among the more unusual characters of the genus Asellus it may be noticed that 'the basal joint of each maxilliped possesses in the ovigerous female a rather large plate, bearing a number of bristles at the end and directed backwards; it has been mentioned and well drawn by Sars; its function is certainly to produce a current of water in the marsupium.' 14 The marsupium or incubatory pouch is formed by four pairs of oval plates or membranes springing from the base of the first and second gnathopods and the first two pairs of peraeopods. The close overlapping of these oostegites or egg-covers forms a compact oval reservoir beneath the front part of the peraeon. 15 The pleon or tail-part of Asellus aquaticus, as it is functionally differentiated from that of Gammarus pulex, so also superficially it is very unlike. Not only by its flatness and relative shortness is it strongly distinguished, but instead of seven distinct segments here there seems to be only one. The fact is that the segments, apart from a rudimentary first one, are consolidated into a caudal carapace much after the fashion of the cephalic carapace at the other extremity. The long pair of apical appendages are the uropods, proper to the sixth pleon segment, the small projection of the caudal shield between them no doubt representing an unarticulated telson. The earlier segments must be inferred from their pleopods, of which the first two pairs are much modified in the male and the second pair are wanting in the female.

The Isopoda terrestria are sometimes held up to reprobation as pests of the garden. It is very questionable whether they ever do any serious amount

H. J. Hansen, Proc. Zool. Soc. Lond. (1904), ii, 305.
 G. O. Sars, Crustacés d'eau douce de Norvège (1867), p. 113.

Their presence in great numbers may be a sign of untidiness or But only a few, even of the widely distributed species, appear to form large associations in any one locality. Their favourite resorts under moist stones and potsherds, rotting leaves and mouldering bark, are not very consistent with an epicurean appetite; and if they are occasionally found with the plundering wasp in a half excavated peach or a decaying apple, it is not likely that they began the depredation in which they are sharing. At any rate Herefordshire, famous for fruits, has recorded no verdict against them, and scientifically has taken no notice of them at all. The county can be credited certainly with five species, probably with several others. in question all belong to the tribe Oniscidea, and to one family in that tribe, the Oniscidae. Here as usual there are two pairs of antennae, but the first pair, besides being only three-jointed, are inconspicuous in size and position. The pleon is not consolidated as in Asellus, but exhibits six articulated segments. The sixth of these is very small, yet no doubt it is composite, the basal part which carries the uropods representing the true sixth segment, while the narrowed apex represents the seventh segment or telson. composite piece, which in some of the Isopoda attains a great size, may be called the telsonic segment. The general organization makes it sufficiently clear that these shrimps of the garden and the woodland are derived from aquatic progenitors. It may be asked what inducement they had to forsake their natural element. Possibly hostile pursuit gave the impulse. Just as in naval warfare a sloop might find refuge in shoals and intricate recesses of the coast whither frigate and man-of-war cannot follow it, small crustaceans may have beaten a retreat from depth to shallow, from shallow to spray-moistened shore, and so on by slow degrees to situations merely humid or completely dry. In this progression it would not be surprising if the branchial pleopods derived from marine ancestors experienced some modifications in favour of subaerial respiration. Whether it be surprising or not, what we find is this: In some of the genera of the Oniscidae the pleopods are tracheate—that is, they are furnished with pseudo-tracheae, an arrangement approximating to the proper tracheae of insects. Among the genera with which we are here concerned, Oniscus, Philoscia, and Platyarthrus are non-tracheate, Porcellio and Metoponorthus are tracheate. The second antennae help to a further and to some extent easier discrimination. These organs have a five-jointed peduncle, carrying a terminal flagellum or lash. In many crustaceans this flagellum being many-jointed, long, and flexible, is obviously whip-like. In this family, however, its joints are very few, but none the less an aid in classification. Thus in Oniscus and Philoscia the flagellum is three-jointed, while it is only two-jointed in the other three genera. But Oniscus and Philoscia can be readily separated by another obvious character, because in the latter genus the pleon is abruptly narrower than the peraeon or middle body, whereas in Oniscus the outline of the two parts is continuous. The same distinction of a narrowed pleon separates our British species of Metoponorthus from Porcellio.

The most abundant of our British species, and the largest of the five here under discussion, is *Oniscus asellus*, Linn. It was obtained at Ludford and at Berrington under stones, and occurs practically all over England. It is extremely prolific. In the second antennae the first and third joints of the flagellum are each longer than the second, but in young specimens both the

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first and second joints are small. It should also be observed that the continuity of the body's outline is maintained between the last segment of the peraeon and the third of the pleon, the first two pleon segments being hemmed in between these, and narrower than either of them.

Philoscia muscorum (Scopoli), which was taken in woods on the borders of Herefordshire between Ludlow and Richards Castle, is a smooth, shining species, with pretty symmetrical markings. It is smaller and more nimble than the Oniscus. In the flagellum of the second antennae the second and third joints are subequal, together little or not at all longer than the first joint.

Platyarthrus hoffmannseggii, Brandt, was found at Berrington in its accustomed habitat, an ants' nest. The flagellum of the second antennae is really two-jointed, but the first joint from its smallness is difficult to observe. The species is easily captured, as it is blind and perhaps in consequence slow to apprehend danger. Its creamy colour and small size give it a vague resemblance to the pupal ants. For the same reasons it is something like the recently extruded young of some larger species.

Porcellio scaber, Latreille, found at Ludford, competes with Oniscus asellus in abundance, approaches it in size, excels it in the roughness of its tubercular ornamentation. The standard colour of this species may be described as a uniform dark grey, amounting almost to black. But there are several variations which seem rather prevalent on the borders of Herefordshire and Shropshire, comprising a uniform brown and an irregular blotching of yellow and brown. It is easy to fancy on a cursory inspection that two or three different species have been captured, but a more careful survey dispels the illusion.

Metoponorthus pruinosus (Brandt) is a narrow, slightly rugose species. The head is small, with the lateral lobes, so conspicuous in P. scaber, here little developed. In the second antennae the first joint of the flagellum is much longer than the second. Undamaged specimens, according to Mr. W. M. Webb, 'are of a beautiful bluish-grey colour, owing to a "bloom" which is easily brushed off, revealing a dark reddish-brown tint beneath it.' 16 It is described as very common by Bate and Westwood, and as cosmopolitan by Budde-Lund, who no doubt rightly attributes its wide distribution to the agency of human navigation. Yet it is not always easy to find. Nor is this experience confined to Great Britain. In 1847, Adam White named a species Porcellio zealandicus, as coming from New Zealand. This was described and figured by E. J. Miers in 1876, and in 1885 Budde-Lund suggested that it might be identical with our M. pruinosus. But it was not till March, 1905, that Professor Charles Chilton was able absolutely to confirm this suggestion. He had for many years been on the look out for this species among the Isopoda of New Zealand, but without success till the date mentioned. notes, too, that while M. pruinosus remains rare; on the other hand Porcellio scaber, Latr., another introduced species, is extremely common all over New Zealand, and in addition to being found near inhabited places, has penetrated to some extent into the bush far from houses.17 The caprice of distribution is further illustrated by Armadillidium vulgare (Latreille), 'which is common,'

Webb and Sillem, The British Woodlice, p. 37 (1906).
 Trans. New Zealand Inst. xxxviii, 64 (1905).

Chilton says, 'in the City of Nelson, but has so far not been recorded from any other part of New Zealand except Mount Egmont, whence a single specimen was sent me years ago by the late Mr. Drew.' 18 Curiously this very species, which to the general mind is more than any other the typical woodlouse, and which in its specific name bears the stamp of its supposed ubiquity, will sometimes baffle research even in England. It was sought for with some diligence by two observers during the whole month of August in the neighbourhood of York, on the borders of Herefordshire and Shropshire, and at Walton-on-the-Hill in Surrey, without a single specimen being seen in any of those districts.

For the whole sub-class of the Entomostraca there appears to be in this county a complete dearth of recorded information. A few species have now been obtained, enough to prove that the waters of Herefordshire are not envenomed against the ordinary crustacean fauna of English ponds. Two species of Cladocera have been found, microscopic forms of this interesting order which derives its name from the branching horns of the second These organs are in this group used for swimming, while the socalled feet are enclosed in the pellucid valves of the test. Both the species obtained belong to the family of the Chydoridae, in which both branches of the second antennae are three-jointed, whereas in the more familiar Daphnidae one branch has three joints and the other four. Our first species is Chydorus sphaericus (O. F. Müller), probably the commonest of all the Cladocera, but a little miracle of agility. Mr. D. J. Scourfield has published some interesting observations on this small species which bring it into line with what was previously known in regard to larger forms. The parthenogenetic females produce abundant broods without marital assistance. But the case is different with the ephippial females. These much rarer individuals devote a portion of their shell to forming a case for the 'winter' or 'resting' eggs, which are destined to preserve the race through long periods of drought. So far as forming the ephippium and laying the egg is concerned, these mothers are as independent as their parthenogenetic sisters. throw off the ephippium when moulting. But when by careful isolation of ephippial females all access of the male was precluded, Mr. Scourfield found that the ephippium was again and again formed and again and again thrown off, while the egg still remained with the mother. The inference is therefore fairly drawn that these winter eggs need fertilisation, and in fact it is in company with ephippial females that the rare males are most likely to be found. 19 Mr. Scourfield concludes his discussion by saying:

I would heartily recommend anyone wishing to know of a piece of work worth doing, and within the power of an earnest amateur, to take up the study of this question of the times and causes of the appearance of males and 'ephippial' females among the Cladocera; and further, as a special object of attention in the inquiry, [would wish] to recommend to his notice the very common little water flea, Chydorus sphaericus.<sup>20</sup>

Alona quadrangularis (O. F. Müller), the second species obtained, is even smaller than the preceding, rarely reaching one-thirtieth of an inch in length, with a much smaller breadth.

Among the Copepoda, or oar-footed entomostracans, the family Cyclopi-

<sup>18</sup> Trans. New Zealand Inst. xxxviii, 64 (1905).

<sup>19</sup> The Annual of Microscopy, Oct. 1898, p. 64.

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dae afforded some of the species well known in the literature of the subject, but not always on that account very easy to name or discriminate with certainty. Two species with the first antennae seventeen-jointed appear to agree with Cyclops signatus, Koch, and C. vicinus, Uljanin, as determined in Dr. Brady's 'Revision of the British Species of Freshwater Cyclopidae.'21 The former of these according to Mr. Scourfield 22 should rather be called C. fuscus (Jurine); the latter he regards as a mere variety of C. strenuus, Fischer, which, he says, may be found indifferently in the open waters of large lakes or in the smallest of pools. 'Corresponding to this diversity of habitat is its remarkable variation, which has led to the formation of several so-called species, e.g. C. vicinus, C. abyssorum, etc. In the present state of our knowledge, however, these cannot be considered as good species, scarcely even as permanent varieties, and it seems best, therefore, to group all these forms under the one name, C. strenuus, as is done by several recent writers, e.g. Schmeil, Richard, Mrázek, &c.' From both the preceding species, however we name them, C. serrulatus, Fischer, another Herefordshire capture, is well distinguished by its twelve-jointed first antennae, and similarly we have C. kaufmanni, Uljanin, separated from the other three by having the first antennae ten-jointed. In our specimen as in those figured by Uljanin and Brady, the joints 1, 2, 6, 7, 10, are superior in size to the joints 3, 4, 5, 8 and 9. In this species according to the two authors just mentioned it is characteristic that all the branches of the swimming-feet are two-jointed. This is true of three of the pairs in our specimen, but one of the pairs has both branches distinctly one-jointed. The little fifth feet are two-jointed. The caudal rami are very short, but it must be admitted that they agree better with those figured for C. phaleratus, Koch, than with their own portraits. C. phaleratus itself has ten-jointed antennae, but the sizes of the joints differ from those in C. kaufmanni, the second antennae are also different, and the fifth feet are one-jointed. It is necessary to give precise particulars in regard to C. kaufmanni, because it appears to be an exceptionally rare species. In 1891, Dr. Brady only knew of its having been found in two British localities, by Norman in Lambton Park, Durham, and by Brady himself in Minstead Mill Dam, Hants. He adds: 'it has not been noticed so far as I know by any other author since its publication by Uljanin.' 23

In the very scantiness of this catalogue there is one redeeming feature. The local naturalist whose enthusiasm is first awakened to explore the wells and weedy waters, the gardens and woodlands, the old walls and quarries of this county for their carcinological treasures, is sure of an unexhausted territory for his researches. Beyond all question there are numbers of species for him to find, and almost every one of his discoveries will be a new record for Herefordshire.

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<sup>&</sup>lt;sup>21</sup> Nat. Hist. Trans. Northumberland, &c. xi, pt. 1, pp. 68-120 (1891).

<sup>&</sup>lt;sup>12</sup> Journ. Quekett Micros. Club (ser. 2), vi, p. 133 (1895).
<sup>13</sup> Trans. Nat. Hist. Northumberland, &c. xi, 90, and Uljanin, Reise, p. 38, pl. ix, fig. 1-5 (1875).

# FISHES

The rivers of Herefordshire are a great feature of the county. The Lugg, with its tributaries the Arrow and the Frome, waters the north and eastern parts; in the south the Monnow, into which, through the Golden Valley, runs the Dore, forms the boundary between Herefordshire and Monmouth; in the east the Leddon flows through Bosbury and Ledbury, and thence out of the county to join the Severn at Gloucester; while in the north-eastern corner the Teme divides Herefordshire from Worcestershire.

The very beautiful Wye, which enters the county at Hay, in the parish of Clifford, traverses the county for about 80 miles and leaves it at a point known as 'Biblins' within two miles of Monmouth, where it is joined by the Monnow. The river has a natural fall of about 4 ft. per mile in this distance, and its rapid flow has proved itself capable in flood time of raising the normal level at Hereford Bridge in one night by 14 ft. The upper waters of the Wye above Clifford being upon rocky Silurian strata formation, abound in rapid runs over miles of stony beds with no still pools to break its swift course; here, where ground-produced food and certain favourite flies are absent, it is scarcely to be expected that trout and grayling will be found; these species find their way to the smaller streams and more congenial surroundings of the tributaries of the Wye.

As regards coarse fish, of which so many are named in this article, an interesting list is given by Mr. Willis Bund in Country Life, 31 March, 1906. After a three months' drought, when our rivers were remarkably low, he was present at a pump-out of a weir on the Teme below Powick. The following varieties of fish were found: two salmon, 18 lb. and 10 lb.; dace, bleak, roach—a large number over 1 lb.; three sackfuls of chub over ½ lb., and many smaller; six bream; one samlet; ruff, pike, 3 lb. and 7 lb.; eels, but none large; loach, bullheads, and a few flounders; no trout nor grayling.

The late Mr. Stephens used to invite his friends to witness a small mesh netting of coarse fish in the Wye in the month of June, when the fish congregate for breeding, and he would net 2 tons of them in a day, contending that he benefited the salmon and trout varieties in so doing—a contention which, however, is very disputable. He certainly captured a few large pike and some few large chub; of roach and dace, none very large; of salmon and trout very rarely either sort, and if any, they were restored to the river at once.

The descriptions in the following list are confirmed by the various industrious writers whose life-long studies and abundant literature on Salmonidae and coarse fish afford most valuable and interesting information, especially the works of Sir William Jardine, Yarrell, and Houghton.

# **FISHES**

# TELEOSTEANS

#### **ACANTHOPTERYGII**

#### 1. Perch. Perca fluviatilis, Linn.

This is the most beautiful of our river fishes and is fairly abundant in all our streams where there are deepish pools below rapid streams. The Rev. T. W. W. Trumper caught one at Clifford weighing 3 lb., but the old fishermen and fishmongers rarely find them exceed 2 lb. in the Wye or Lugg. They are destructive to all fish smaller than themselves, and I have watched them for two days and more gorging a minnow like a snake if too long to swallow whole. In ponds where they breed they are too numerous to grow large, but Houghton says if males only can be selected for ponds they soon grow to  $1\frac{1}{2}$  lb. Mr. Lee has taken one at Holme Lacy weighing  $3\frac{1}{2}$  lb. They are neither large nor numerous in the Lugg or Teme, but in the Monnow, in places, shoals of small size occur.

#### 2. Ruff or Pope. Acerina cernua, Linn.

This variety of coarse fish is very little known in Herefordshire streams; its habitat, like that of the gudgeon, is slack water or large stones at the foot of shallows.

#### River Bullhead or Miller's Thumb. Cottus gobio, Linn.

Not numerous in the Wye, but very plentiful in the Monnow, where gravel is large and rough stones prevail; they occur also in all the other streams, and are a capital bait for trout in trolling. The variety with nine spines mentioned by Yarrell, 'Father-lasher,' is not found in Herefordshire rivers.

#### HEMIBRANCHII

# 4. Three-spined Stickleback. Gastrosteus aculeatus, Linn.

This species seems to be well known in the streams of the Wye and tributaries, where floods leave pools, and in backwaters, as at Holme Lacy Vicarage, where they breed abundantly.

#### **HAPLOMI**

### 5. Pike. Esox lucius, Linn.

Very numerous and destructive to salmonidae in the Wye and Lugg, and the Board of Conservators encourage their capture by cleeching nets; the largest specimens rarely exceed 20 lb. Mr. Jones of Edgar Street, Hereford, during August and November 1905 caught eighty-seven pike weighing 426 lb. These fish spawn in April with an extraordinary quantity of ova, and, as the late Mr. Frank Buckland used to say, the fry are rare food for lastspring and other small fish. An old bend in the Wye at Letton, with quite stagnant water for several months in the year, belonging to Mr. H. Dew, and Talgarth Lake above Hay, overflowing to the Wye, are the two great nurseries of these river sharks. The curious back set of their dorsal and ventral fins affords them immense power in rapid seizure of their prey and finer fish. Three or four lastspring are often found in the pouch of these destructive fish

enemies. The Rev. W. Lee of Holme Lacy, a great angler and naturalist, gives me the following remarkable story as to pike :-- After fourteen years of observation, living close to the banks of the Wye, he observes after every flood that otters are numerous and their chief food then are pike. He frequently finds after every flood the heads of large pike, at least six or seven in 11 miles of river, and sometimes heads of chub, but never the heads of salmon or trout. No doubt pike in flood time hug the sides of the river and avoid the deep strong waters, and hence are more readily taken by the otter and the cleeching net. They are frequently taken by rod and net over 20 lb., and one was taken by Mr. Jones in the Dingle Pool, at Belmont just above Hereford, in March 1906 weighing 21 lb.; the more common weights are from 12 lb. to 14 lb. There is a record of one taken in the Teme at Wooferton, Easton Court, weighing 86 lb. In the Wye specimens weighing between 20 and 30 lb. are occasionally captured.

#### OSTARIOPHYSI

## 6. Carp. Cyprinus carpio, Linn.

Taken in lakes and ponds, and very rarely in rivers. There are some very large ones in the lake at Holme Lacy, and one of 4 lb. was taken in the Wye, below Holme Lacy, by Stephens' nets some years ago.

#### 7. Gudgeon. Gobio fluviatilis, Flem.

Numerous in all our streams and especially so in the Wye, but they never seem to attain the size or numbers they do in the Thames or Isis at Duxford; they are good in trolling for pike; excellent as they are they are never likely to be taken in nets, under the Wye Board restrictions, and so remain food for other fish.

#### 8. Rudd or Red Eye. Leuciscus erythrophthalmus, Linn.

Occur in the Wye among roach and other coarse fish at breeding time in May, but not numerously; their bright red eyes and fins readily distinguish them.

#### 9. Roach. Leuciscus rutilus, Linn.

Abundant in all our streams where followed by slack water. In the moat at Castle Green, Hereford, they are very numerous and cannot grow to any size; the moat is fed by the Yazor Brook, and swans feed upon them, but no pike can worry them, and they dwell amicably with perch; both varieties breed there, and large shoals breed in the Wye on Rotherwas Water in Mav.

#### 10. Chub. Leuciscus cephalus, Linn.

This coarse fish is far too numerous; many are taken in the Wye, Lugg, and Monnow of 3 lb. weight, but the average weight is 1 lb. The little black gnat is their favourite fly.

#### 11. Bream. Abramis brama, Linn.

Only occasional specimens are found in our rapid rivers. Mr. Willis-Bund mentions one (Country Life of 31 March, 1906) taken in the Teme below Powick weir.

#### MALACOPTERYGII

#### 12. Allis Shad. Clupea alosa, Linn.

Frequent the Wye and Lugg, but are not common; numerous near Ross, and the Rev. T. W. W. Trumper has taken them at Clifford

#### 13. Thwait Shad. Clupea finta, Cuv.

These come in shoals, and their noise on the streams soon attracts attention; they are found in the Lugg up to Tidnor Mill and in the Wye, but not so abundantly as in the Severn; they are also taken in the Teme at Powick below the weir. In 1906 they were exceptionally numerous at Hereford, and at Builth great quantities were found dead in the river after spawning.

#### 14. Salmon. Salmo salar, Linn.

This 'aristocrat of the waters,' as Mr. Gathorne-Hardy calls it, has ever been the Wye's piscatorial glory, and is very plentiful; but its cultivation for many generations past has been the anxious study of landed proprietors, sportsmen, lessees of fisheries, boards of conservators and literary men, and much angry controversy has occasioned varied legislative and local regulations to prevent absolute annihilation of the species, which at one time appeared imminent. Salmo salar chiefly breeds in the upper reaches of the Wye above Clifford, and in the counties of Radnor and Brecon, where serious lawless destruction of the fish on the breeding redds occurs every winter. Many, however, breed near Hereford, and if long frost and drought in winter occur large areas of gravel are exposed and salmon ova destroyed. Mr. David Miller, late of the firm of Miller Brothers, who so long pursued the important fishery industry at the estuary at Chepstow, agrees with me in thinking that many salmon after being in our middle waters in summer months become very much deteriorated for the market, and descend the river at the first important flush to recover themselves in the sea. They soon return to breed, but certainly not all of them, and those which remain and go up to breed are most likely those which are frequently found dead. In the year when the terrible fungus Sapriolegnia ferax attacked them, large quantities were seen floating down at the estuary, and were avoided by fishermen. Grilse are fairly numerous in August and ascend the river far beyond this county boundary, many of them being small enough to escape the 10 in. mesh nets; these return to the sea after the netting season is over, and ascend as fine fish in February and March following.

As regards lastspring, that beautiful little fish with five finger marks, my own experience in pisciculture, in hatching, rearing, and keeping them in a little spring for two years, assures me they do not all go down the first year. They however vary as salmon do in spawning, some early in October and some as late as February. After the winter months the little fish develop, or very slowly progress, according to temperature and food. Many no doubt find their way to sea during the following year after hatching, but not in large quantities. Sir Richard Harington has lately found young Salmo salar in his moat at Whitbourne Court from \$\frac{3}{4}\$ lb. to \$1\frac{1}{2}\$ lb. weight probably of three years' growth. His moat tributaries are connected with the Teme, from which the lastspring have doubtless found their way. salmon from ova in the winter of 1856, preserved them a year in a spring pond, and took them in various sizes to the Monnow River at Kentchurch in March 1857. In the following year in March I caught two almost entirely without finger marks. These were probably smaller grown fish, which were just following the rest to the sea. Salmon cannot ascend the mill weirs on this Wye tributary, so my experiment was futile for another breeding tributary. Sir William Jardine and Mr. Jenkins writing in 1856 were both in doubt as to whether the parr or last-spring assumed the migratory dress within 12 or 13 months, and looked forward to the experiments at Stormonfield to prove it.

Many thousands of salmon have been taken as kelts in the Wye and Severn, marked with fixed labels on the adipose fin, and put back, with the view of ascertaining when and in what condition they came back from the sea, but their recapture with labels is of very rare occurrence. The chairman of the Severn Fishery Board, however, records an interesting case this

In June last, at Wellhouse Bay, Lydney, a fine salmon, labelled No. 1019, was recaptured, and turned the scale at 30\frac{3}{2} lb. It had been marked and put back at Lydney, 31 October 1905, when it weighed 25 lb. The Wye Fishery Board reports that last season (1907) twenty-seven heavy fish were killed of 27 lb. weight or over, and three of 40 lb., the largest being 44\frac{1}{2} lb., length 50 ins., girth 26 ins.

#### 15. Bull Trout. Salmo eriox, Jardine.

So slight a difference is there between this species and Salmo salar that they are often not distinguished by the angler or purchaser. It is not numerous in the Wye or its tributaries. I caught one at Letton in 1857, and the next morning discerned a remarkable change in colour and numerous spots, more or less dark, all over the fish exactly where trout marks would be, even on the gill shields. In a very interesting correspondence which was published in the Hereford Times of 1 November 1856, between Sir William Jardine and Mr. T. Jenkins, at Hereford, for the benefit of the Woolhope Field Club, Sir William Jardine expresses his surprise that the migratory salmon other than Salmo salar should be such rare visitors to the Wye as stated by Mr. Wheatley; he also regards the name of Sewin as indiscriminately applied to Salmo trutta and Salmo eriox, and says they are equivalent to the Annan Sea Trout. He concludes by saying that, notwithstanding all he had written, he had still difficulty in making out the geographical distribution of the common salmon. notices over all the world, but what are they? certainly all are not our British Salmo salar.' Mr. T. Jenkins in his reply in reference to Sir William Jardine's t scepticism as to the rare habitats of Salmo eriox, or Sewin, states that it is the Sewin of South and North Wales, attaining in the Teviot 41 lb. weight, and called 'square tails.' He considers that the salmon trout, though the least distributed of the tribe, prevails in North Wales; its flesh is equal to the true salmon, but it is shorter than the other two species—the vertebrae of S. trutta being 58, S. eriox 59, S. salar 60. All are occasional visitors to the Wye, but never so numerously or so importantly as Salmo salar. Mr. Lee

<sup>1</sup> Hereford Journ. 22 June, 1907. See also an account in the Times, 1 Aug. 1907, as to movements of salmon, by Mr. Calderwood, Inspector of Salmon Fisheries in Scotland.

# **FISHES**

of Holme Lacy says he took one of 15 lb. weight some years ago plentifully sprinkled with large dark spots, like a trout's, even on the gills, but they are certainly not common. Yet these evidence occasional crossing.

#### 16. Sea Trout. Salmo trutta, Linn.

Rarely taken: chiefly found in the Chepstow waters, and in the tideway.

## 17. Common Brown Trout. Salmo fario, Linn.

This non-migratory species is well known in the Wye and all the tributary streams; it is deemed best in the Arrow, and least best in the Monnow. Pisciculture has proved that brown trout sometimes fructify salmon ova, and vice versa; and Sir Richard Harington mentions that hybrids are to be seen and taken all the year round in the Teme. These I believe to be rare and more accidental than common; they are no doubt found breeding at the same times and seasons as Salmo salar, but in very different localities and streams.

In the tributary of the Wye coming from Talgarth Lake I once took a splendid 3-lb. trout full of ova, which I carried for two miles expecting to get a male salmon and obtain hybrids, but on trying to obtain the ova, I found it was a male trout marvellously distended with as much salmon ova as would fill two tumblers. These when disgorged were beautifully clear and bright, but next morning they were all opaque and done for.

I reared some brown trout one winter, and kept them in a spring for a year, and then took them to some ponds at Elsdon, Lyonshall, now the property of Mr. S. Robinson; in two years they were taken at 2 lb. weight and over, and in beautiful season; after that, lacking food and needing a change, they deteriorated in colour and flavour.

The recent years of long summer and autumn droughts have been very destructive to trout. The poacher by groping under orls and sally roots and stones, can take them readily; grayling cannot easily be taken in this way; they keep in deeper waters.

The late Mr. J. H. Arkwright for many years introduced young Loch Leven trout and American

brook trout into his fine trout waters of the Lugg at Hampton Court, but was disappointed with his experiments. Few survive the voracity of older trout, pike, and coarse fish in rivers, probably owing to the error of turning small fish into a river or adjacent streams, instead of keeping them for a year in ponds or much smaller streams till they attain larger growth. An ideal trout stream and nursery for trout is the Hindwell, a tributary of the Lugg at Knill Court: the occupier, Colonel Heap, preserves it well, and turns some of its waters into a charming lake for rain-bow trout only.

Our Herefordshire rainbow trout are believed to have been first brought from the Western States of America, in the ova state, in 1887, to the Midland Counties Fishery at Malvern, then the property of Mr. Burgess, now of Mr. Walter Bailey. They spawn in March, later by some months than our brown trout, and like Salmo fontinalis, which many of us tried in our rivers, all seem to get away seawards and disappear. Being voracious feeders and not getting sufficient food in ponds, they deteriorate in those places after three or four years.

## 18. Grayling. Thymallus vexillifer, Linn.

Some years ago these fish were very abundant at Clifford and Letton streams, but are not so now. Mr. Wyndham Smith says they are increasing at Hoarwithy; the writer caught one at Letton of 3 lb. weight. The Lugg and the Teme are their more favourite streams. The Teme grayling are called the finest in England, and are grand autumn and winter fish

Yarrell speaks of one at Shrewsbury of 5 lb. weight, another in the Test  $4\frac{1}{2}$  lb.; but in the Lugg, Teme, and Wye, fish over 3 lb. to 4 lb. are rarely taken. In the Monnow they are increasing, but drop over the weir at Kentchurch, and, not being able to ascend, are more numerous near Skenfrith. Their home is the pool below a rapid stream, and they are not so easily taken in seasons of drought as trout are by the poaching groper with his hand under the roots of trees and rocks and stones. Unlike salmon and trout, which spawn at night, grayling may be seen in May busily at work on their redds in the brightest sunshine.<sup>2</sup>

#### GANOIDS

#### 19. Sturgeon. Asipenser sturio, Linn.

An occasional visitor to the Wye, but to none of the tributaries. One was caught at Breinton, three miles above Hereford. A man named Posten stripped and attacked a sturgeon with his knife in 1846. The

<sup>2</sup> In the year before Sir William Jardine died, I was visiting at Jardine Hall, and was surprised to find he had never seen but much desired to have specimens of grayling sent him. I readily promised to try and bring him some alive, but found it no light task. The late Mr. John Arkwright provided two brace of splendid grayling in two fish cans at Dinmore Station, and with

fish, which was brought to Hereford and exhibited at considerable profit, weighed 162 lb. and measured 8 ft. 6 in. It is now in the museum at Hereford. Mr. Wyndham Smith caught one near his place at Aramstone, Hoarwithy, some years ago, and another at Wyastone Leys, Ganarew, weighing 137 lb.

the aid of a hothouse syringe for pumping air into the water they got to Lockerbie that night; the cans were then laid in a little stream, and the next morning Sir William Jardine made his drawing and turned them into his lake. Mr. David Jardine Jardine, the present owner of Jardine Hall, lately told me that the lake was cleaned out some five years ago, and no grayling

## CYCLOSTOMES

20. Sea Lamprey or Stone Sucker. Petromyzon marinus, Linn.

These remarkable fish, resembling eels, with circular suctorial mouths by which they cling to large stones when making in strong streams furrows or redds in the gravel for spawning, are still numerous in the Wye, and are taken on Breinton and Belmont streams just above Hereford. The late Dr. Symonds used to take them with a walking stick and a salmon hook spliced on to the end. In a clear stream they are readily seen making redds.

21. River Lamprey or Lampern. Petromyzon fluviatilis, Linn.

These are found in the Wye and Lugg, and in all their tributary streams, brooks, and rills.

Yarrell, Houghton, and Jardine all mention the metamorphosis these species undergo in the course of three or four years, and their life history is not yet fully ascertained.<sup>3</sup>

The writer accidentally found the fry of this cartilaginous creature on I May in the mud of the Wye near Hereford Bridge; hundreds of them in a small space from 2 in. to  $1\frac{1}{2}$  in. long. These small fry, found in the mud probably a year after spawning, in the adjoining streams, are locally called 'Pride' and are believed to be the fry of river lamprey or lampern. They form food for chub, perch, roach, and other coarse fish.

<sup>8</sup> Yarrell, Hist. of Brit. Fishes, ii, 454; Jardine, Naturalist's Library, 'Ichthyology,' xxxiii, 338, and the admirable pictures and accounts of them in Houghton, Brit. Freshwater Fishes.

# REPTILES AND BATRACHIANS

The only orders of the great class Reptilia, which are represented by living species in Great Britain, are the lizards (*Lacertilia*), and the snakes or serpents (*Ophidia*). On the mainland of Great Britain we have three species of lizards, and three species of snakes, six species in all of reptiles. In addition to these, two other species occur in the Channel Isles, the green lizard (*Lacerta viridis*) and the wall lizard (*Lacerta muralis*), so that if these isles be included in the term Great Britain we possess five lizards.

Neither the green lizard nor the wall lizard, however, is indigenous to the mainland, although some escaped specimens are now and then captured, the result of the growing custom of keeping these creatures as pets

in captivity.

Of the three snakes, the adder (Vipera berus) occurs in every county in England, Scotland, and Wales, but not in Ireland. The grass or ring snake (Tropidonotus natrix) is common in most English counties, becoming rarer as we go north, and in Scotland occurring only in Roxburghshire and Berwickshire, absent also from Ireland. The rare smooth snake (Coronella austriaca) is restricted to the southern counties of Dorset, Hants, Surrey, and Berks.

In Herefordshire the slow-worm or blindworm is by far the most common lizard (Anguis fragilis), the common viviparous lizard being much more local, and in many parts of the county absent (Lacerta vivipara). The sand lizard (Lacerta agilis) does not occur. In this county, therefore, we

have four reptiles, two snakes, and two lizards.

It so happens that there is probably no county in Great Britain in which so much attention has been paid to the reptile fauna, as the county under notice, for it was within its area that the present writer carried out an extensive series of observations extending over a period of seven years, only the briefest summary of which can here be mentioned.<sup>1</sup>

The distribution of the adder and the ring-snake within the county seems to be determined by physical conditions. Thus the harmless ring-snake is found fairly commonly in the flat district where the land is well wooded, in company with the adder. Towards the mountainous southern border, especially in the district of the Monnow Valley (which divides the county from Monmouthshire) the ring-snake disappears, and the adder becomes more common. This is obviously a matter of immunity from

<sup>&</sup>lt;sup>1</sup> See Brit. Serp. (Blackwood), Brit. Lizards (Upcott Gill), Reptile Studies, The Field Naturalists' Quarterly, and various papers in the Transactions of the Woolhope Club and the Royal Physical Society of Edinburgh, by G. Leighton, M.D.

enemies, and abundance of shelter. In fact the civilization of the low-lying land under farming operations has driven the adder to seek the seclusion of the bracken and lonely woods of Garway Hill and the neighbouring districts. The average length of the adult male adder in the county is 24 in., that of the adult female  $25\frac{1}{2}$  in., both these figures being the highest average length for any part of Great Britain.

An immense range of colour variation is found to obtain in the adders.<sup>2</sup> A careful consideration of all the possible factors leads to the conclusion that the colouring is almost entirely a matter of age and sex. Certain colours are characteristic of males, others of females: some colours are restricted to particular parts of the body of one or other sex. Young males are the most brilliantly coloured: old females the least. Climate and locality appear to have but little or no influence on colour variation, all varieties being found in a series of adders collected on the southern aspect of Garway Hill. The food of the adders was found by actual dissection to consist chiefly of mice, slowworms, and newts, occasionally birds. The average number of young in the adder litter, determined by dissection of a series of gravid females proved to be thirteen. The size when born varies from 6 in. to 7½ in.

The small red variety of the adder (known as the small red viper) occurs on Garway Hill.

Cases of adder bite amongst the domestic animals occur not infrequently, especially in cattle, sheep, and dogs. A fatal case in a Hereford cow came under the notice of the writer, who captured the adder lying beside its victim on a farm on Garway Hill. As is usually the case the bite was on the udder.

As regards the group of Batrachians this county has no specially characteristic features.

#### REPTILES

#### LACERTILIA

 Common or Viviparous Lizard. Lacerta vivipara, Jacq.

In no part of the county is this lizard common, and in many parts it is entirely absent.

Sand Lizard. Lacerta agilis, Linn.

This species does not occur anywhere in the county.]

2. Slow-worm, or Blindworm. Anguis fragicis, Linn. Fairly common in all parts of the county, attaining an average length of from sixteen to seventeen inches. In the Monnow Valley it is the only lizard which occurs, being very common on the slopes of Garway Hill, the woods of Kentchurch Estate, and in the neighbourhood of Ewyas Harold. It can be found in almost every old quarry.

#### **OPHIDIA**

 Common or Ringed Snake. Tropidonotus natrix, Linn. (Natrix torquata, Ray.)
 In the district of Whitchurch, near Ross, this species is more common than the adder. It also occurs at Fownhope, Stoke Edith, Cradley, and less commonly in other parts. In the Monnow Valley one specimen only has been recorded, and that from Kentchurch Park. The average number of eggs deposited by the ring-snake in a season varies from twenty to thirty.

4. Common Viper or Adder. Vipera berus, Linn.

This species is by far more common in that part of the county which lies to the south of the Wye than in the northern portion. It is the only snake in the Monnow Valley from Pontrilas to Skenfrith, and is common throughout the whole length of that eight miles. Some limited portions of Garway Hill are infested with adders. They are seen every year on the Tump at Ewyas Harold (a little hillock about a hundred yards from the centre of the village). On Welsh Newton Common, and near Symond's Yat adders can be found with ease in suitable spots. In one wood on the Hilston Estate, near Skenfrith the writer captured four female adders, all measuring over 26 in. in length in one afternoon.

# REPTILES AND BATRACHIANS

#### BATRACHIANS

#### **ECAUDATA**

1. Common Frog. Rana temporaria, Linn.

Common everywhere in the flat parts of the county, more rare in the hilly districts.

2. Common Toad. Bufo vulgaris, Laur.

Common everywhere, and growing to a very large size in the old quarries in the Monnow Valley.

[Natterjack toad. *Bufo calamita* (Laur.) This species is apparently unrecorded.]

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#### **CAUDATA**

3. Great Crested Newt. Molge cristata, Laur.
This species is fairly common, more so than is

This species is fairly common, more so than is generally suspected. In some parts of the Dulas Estate it can be found every year.

4. Common Newt. Molge vulgaris, Linn.

The species is abundant, both in stagnant pools and in the woods, according to the particular stage of its life history.

5. Palmated Newt. Molge palmata, Schn.

Though not very common this species is found along with the other newts, and the writer has captured all three from the same pond.

# BIRDS

Herefordshire being an extremely well-wooded county is, as may be expected, very rich in all wood-loving birds, and although there are no large lakes in the county, still it is abundantly watered by the rivers Wye, Lugg, and Teme, and their numerous tributaries. On these have been observed from time to time a greater number of waders and sea-birds than one could have expected, although the latter have generally occurred after rough-weather at sea. The county also has a considerable acreage of moorland—on the Black Mountains—which is eminently suitable to moorland birds.

From the following account it will be observed that on the whole the county shows a very satisfactory and an increasing list of British birds, especially as regards the warblers. Unfortunately, the kite is extinct in the county, and I am afraid the same may be said of the hen-harrier; the peregrine is almost so, but the buzzard still remains and is also likely to have its numbers recruited from time to time from the county of Brecon, where, although it is far from common, it is still to be found in fair numbers.

I desire to express my very sincere thanks to Mr. T. Hutchinson of Hereford not only for placing at my entire disposal his own list of Herefordshire birds, but for giving me also most valuable information. My thanks are also due to Mr. Blake of Ross for many valuable notes relating to the Ross district; to Dr. H. C. Moore, the secretary of the Woolhope Naturalists' Field Club; to Mr. J. B. Pilley, the assistant secretary; and to many others for their kind assistance.

The numerous notes of Mr. Ashdown, the naturalist, who formerly resided in Hereford, and which notes have appeared in the volumes of the Transactions of the Woolhope Club, have been of the greatest help to me, as well as the Transactions themselves, for the use of which I wish to express my acknowledgements.

Other notes have been taken from the late Dr. Bull's Herefordshire Birds, and also from the list of the late Mr. Horne of Hereford.

In the following list the nomenclature adopted is that employed in the late Mr. Howard Saunders' List of British Birds (1899). In cases where the record of a bird's occurrence is open to doubt the entry is placed within square brackets. Brackets placed round the name of the original describer of the species indicate that he did not employ the generic name which is now adopted.

# BIRDS

1. Mistle-Thrush. Turdus viscivorus, Linn.

Locally, Missel-thrush, Mistletoe-thrush, Misselbird, Storm-cock, Screech-thrush, Holmthrush, Holm-screech.

A common resident in the county. In the breeding season this bird is very pugnacious, fearlessly attacking any other bird.

2. Song Thrush. Turdus musicus, Linn.

Locally, Common Thrush, Throstle, Mavis.

Also a common resident. A curiously buff-coloured male was caught at Kingsland in 1893.

3. Redwing. Turdus iliacus, Linn.

A winter migrant occurring regularly in the county from September to March, a few staying as late as the beginning of April. This bird has a very musical song. I once heard several singing on a thorn tree late in March.

4. Fieldfare. Turdus pilaris, Linn.

Locally, Blueback, Bluerump, Bluetail, Felfit, Feltyfare, Jackbird, Velde bird, Beldibird.

A winter migrant usually appearing about the middle of October and leaving in April. In hard weather large flocks of these birds, as well as redwings, abound.

5. Blackbird. Turdus merula, Linn.

Locally, Merle, Ouzel, Black-ouzel, Amzel.

A common resident. It is very liable to albinism, and every year one hears of white, and partially white, birds. A great many leave in October.

6. Ring Ouzel. Turdus torquatus, Linn.

Locally, Ring-thrush, Moor Blackbird, Mountain Blackbird, Tor-ouzel, Rock-ouzel, Ringblackbird.

A summer migrant, coming in April and leaving in September, and is fairly plentiful on all the hills.<sup>1</sup>

7. Wheatear. Saxicola oenanthe (Linn.).

Locally, Fallow Chat, White-rump, White-tail, Fallow-Smick, Fallow-Finch, Chacker, Chackbird, Clodhopper.

A summer migrant, arriving in March and leaving in October. It occurs in numbers on the Black Mountains (de Winton), and on the Malvern Hills in and adjoining the county.

8. Winchat. Pratincola rubetra (Linn.).

Locally, Grass-Chat, Furze-Chat, Utick, Haytick.

A summer migrant, arriving in April and leaving early in October. Generally distributed throughout the county.

9. Stonechat. Pratincola rubicola (Linn.).

Locally, Stonechatter, Stoneclink, Stonesmick, Stonechack, Stonesmith, Moortitling, Chickstone, Blackcap.

A resident in the county during the whole year, but scarce. Quite rare in the Ross district. One was shot at Backney Common some years ago.

<sup>1</sup> The statement in the *Field* that in some of the dingles of the Black Mountain it resides all the year round is probably a mistake. I have never observed it in the winter.

10. Redstart. Ruticilla phoenicurus (Linn.).

Locally, Firetail, Fireflirt, Brantail, Firebrandtail, Redtail, Kitty-brantail.

A summer migrant and common throughout the county. As a rule it arrives about the middle of April and leaves again in September, but the time of arrival varies a good deal. Dr. Williams of Kingsland, in a paper on 'Curious Experiences in Bird Nesting,' mentions that he has found the eggs of the great tit in the nest of the redstart.

Black Redstart. Ruticilla titys (Scopoli).
 Locally, Tithys Redstart, Black Redtail.

A rare winter migrant, but more common than formerly. Dr. John Wood, a member of the Woolhope Club, reported that in January, 1895, one entered Canon Frome Court; it was either a young male or a female. The bird was captured and placed in a cage for identification, but was found dead the following morning. One was killed at Kinsham in 1878. A freshly killed specimen was also brought to a bird-stuffer in Hereford in the winter of 1879. No doubt this species sometimes occurs in the county and escapes observation.

12. Redbreast. Erithacus rubecula (Linn.).

Locally, Robin, Robin Redbreast, Ruddock, Robinet, Bob-Robin.

A common resident. This bird occasionally lays light blue eggs.

13. Nightingale. Daulias luscinia (Linn.).

A summer migrant, arriving in April; the old birds leaving in September and the young in August. (Saunders.) It occurs generally in the county, and has been reported from Dinmore, Fownhope, where it is fairly common, and at Dinedor, Ewyas Harold, Sellack, Ashperton, How Caple, Wormbridge, Haughwood, Kentchurch, Kimbolton, Ledbury, and on the Dowards, Knightwick. In the Field of 26 May, 1906, it was remarked by the Rev. O. Philpott of Little Marcle, Ledbury, that there was a great increase in the number of nightingales in the spring of that year in the east of the county.

14. Whitethroat. Sylvia cinerea (Bechstein).

Locally, Haybird, Nettle Creeper, Haychat, Titty Whitethroat.

A common summer migrant, arriving in April and leaving in September.

15. Lesser Whitethroat. Sylvia curruca (Linn.).

A summer migrant, arriving about the same time as the last-named or a little later, and leaving in the latter end of September. Bull says this bird is 'generally' distributed, but I should say 'occasionally' only. It has been observed at Aylstone Hill, Hereford. (Hutchinson.)

16. Blackcap. Sylvia atricapilla (Linn.).

A summer migrant, arriving about the middle of April and departing in September, although occasionally a few are believed to remain during the winter. It is generally distributed throughout the county.

 Garden Warbler. Sylvia hortensis (Bechstein). Locally, Pettychaps, Greater Pettychaps.

A summer migrant, arriving about the end of April or beginning of May, and leaving about the

end of September. It occurs fairly often in the county.

17A. Dartford Warbler. Sylvia undata (Boddaert).

Two nests of this rare warbler were seen near the banks of the Teme a few years ago by Mr. Palmer of Ludlow, who not only saw the birds but found the nests. Unfortunately the gorse where the nests were placed was burnt down two years ago, and the birds have not been observed since (Pilley).

18. Goldcrest. Regulus cristatus, Koch.

Locally, Gold-crested Regulus, Gold-crested Warbler, Gold-crowned Ringlet.

A common resident in the county, and its numbers are augmented by immigrants in the spring and autumn. Bull says it is rare in summer, but probably this is owing to its being often overlooked in the thick foliage of the trees.

[Firecrest. Regulus ignicapillus (Brehm).

Although reported to have been 'seen' at Sufton, Hyston, and Sellack the occurrence is almost doubtful, as it is almost impossible to discern the difference between this and the last-named bird, unless one has it in the hand.]

19. Chiff Chaff. Phylloscopus rufus, (Bechstein).

Locally, Lesser Petty-Chaps, Least Willow Wren.

A summer migrant arriving in March and leaving in October; everywhere common in the county.

20. Willow Warbler. Phylloscopus trochilus (Linn.)

Locally, Willow Wren, Yellow Wren, Scotch Wren, Haybird, Huck Muck, Ground Wren, Oven Bird.

A summer migrant from April to September and, as may be expected, one of the commonest of the warblers in the county.

21. Wood Warbler. *Phylloscopus sibilatrix* (Bechstein). *Locally*, Wood Wren, Yellow Wren.

Another summer visitant from April to September. Although common in Breconshire most years, it can only be considered as fairly so in Herefordshire, but the numbers vary in different years. Dr. Williams, alluding to the domed nest made by this bird, says that he once found a nest the top of which was formerly the root of a tree. It is fairly plentiful in the Ross district.

22. Reed Warbler. Acrocephalus streperus (Vieillot).

Locally, Reed Wren, Night Warbler.

A summer visitant arriving in April and leaving in September, but rare in the county, as may be expected from the absence of any large lake where reeds flourish in abundance. It has been observed in Tyberton, Moccas and Shobdon.

23. Sedge Warbler. Acrocephalus phragmites (Bechstein).

Locally, Sedge Bird, Sedge Reedling.

A summer migrant arriving in the latter part of April and leaving at the end of September. This is one of our most abundant warblers and is everywhere common in the county.

24. Grasshopper Warbler. Locustella naevia (Boddaert).

Locally, Reeler.

This often-heard but little seen summer migrant arrives in April and departs in September. It is known by the appropriate name of Reeler from its note resembling the reel of a fishing line when drawn off the reel. It is common in the Ross district and occurs in the Bromyard district, at Kingsland and Kimbolton, and throughout the county.

25. Hedge Sparrow. Accentor modularis (Linn.).

Locally, Hempie, Aizack, Isaac, Blue Isaac, Dunnock, Hedge Warbler, Shufflewing.

A common resident.

26. Dipper or Water Ouzel. Cinclus aquaticus
Bechstein.

Locally, Water Blackbird, Whitethroated Blackbird, Wizzel, Brook Ouzel, Water Crow, Water Colly, Water Kiet, Bessyducker.

Generally distributed throughout the county, more especially on the Garron. (Southall.)

27. Long-tailed Tit. Acredula caudata (Linn).

Locally, Bottle Tit, Canbottle, Mummiruffin, Mumruffin, Ragamuffin, Longtailed Mag, Bottle Tom, Longtailed Capon, Longtailed Pie, Caper Long Tail, Oven Builder, Poke Pudding, Mufflin, Canbottling, Feather-Poke.

A common resident, and occurs in greater numbers than generally supposed. They are very loosely feathered, and in hard weather are generally the first to appear in the apple trees near the house with their feeble, jerky flight.

28. Great Tit. Parus major, Linn.

Locally, Oxeye, Blackcap, Great Black-headed Tom Tit, Pickcheese, Sawyer Bird, G.eat Titmouse.

A common resident. This is a very savage bird, and it may not be generally known that it will kill weaker birds by making a hole in their skulls. Indeed I found it impossible to keep these birds with others in an aviary as they were so destructive. This bird is very fond of nuts, and I have seen one put a nut in the fork of a branch and crack it by stiffening its body and bringing its bill down on to the nut like a hammer. It has also the curious habit of bending the feathers of its tail when clinging to any round object.

29. Coal Tit. Parus ater, Linn. Locally, Coal Mouse, Coalhead.

Also common, but not nearly so much so as the lastnamed. Dr. Williams in the Woolhope *Transactions* states that he once found a coal tit's nest built in a disused one of a thrush.

30. Marsh Tit. Parus palustris, Linn.

Locally, Coal-head, Blackcap, Willow Biter.

A resident, but still less common than the coal tit.

31. Blue Tit. Parus coeruleus, Linn.

Locally, Tomtit, Bluecap, Willowbiter, Blue Tomtit, Nun, Bluebonnet, Billybiter, Hickwall, Blue Mope.

Common throughout the county. Dr. Williams states,<sup>2</sup> that in 1894 he found a blue tit's nest in a

<sup>9</sup> Trans. Woolhope Club, 1896, p. 148.

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hole in an apple tree, the female lying dead beneath it. The nest contained ten blue tit's eggs and one nuthatch's egg. Some little time afterwards six more nuthatch's eggs were taken from the same hole. The nuthatches had evidently taken possession of the blue tit's hole to nest, and on the female declining to give it up had killed her.

32. Nuthatch. Sitta Goesia, Wolf.
Locally, Nutjobber, Woodcracker.

As may be expected from a county so well wooded this bird is generally distributed throughout the whole of it.

33. Wren. Troglodytes parvulus, Koch.

Locally, Jenny Wren, Kitty Wren, Titty Wren, Cutty Wren.

Common everywhere.

 Tree Creeper. Certhia familiaris, Linn. Locally, Creeper, Treeclimber.

A common resident. The careful observer may often notice it clinging to the tree trunk like a mouse searching for its food in the interstices of the bark.

35. Pied Wagtail. Motacilla lugubris, Temminck.

Locally, Water Wagtail, White Wagtail, Black and White Wagtail, Dishwasher, Washtail, Nanny Washtail.

A partial resident, some remaining in South Herefordshire during the whole of the year.

36. White Wagtail. Motacilla alba, Linn.

Occurs near Ludlow, and several nests with eggs have been found in recent years.

37. Grey Wagtail. Motacilla melanope, Pallas.

A common resident partially migratory. It may be readily distinguished by its yellow underparts and its unusually long tail. Some of them remain in South Herefordshire throughout the year. It has bred in the locality of Ross.

38. Blue-headed Wagtail. Motacilla flava, Linn.

An occasional and rare visitant on migration in spring and autumn. Bull says it 'occurs every season at Belmont near Hereford,' but this I should be inclined to doubt; yet as I have myself observed it in Breconshire, probably it may occasionally occur in this county.

39. Yellow Wagtail. Motacilla raii (Bonaparte).

A summer visitant arriving in April and leaving in September; generally distributed throughout the county.

40. Tree Pipit. Anthus trivialis (Linn.)

Locally, Pipit Lark, Fieldtitling, Fieldlark, Treelark, Grasshopper Lark.

A summer migrant arriving in April and leaving in September; common throughout the county.

41. Meadow Pipit. Anthus Pratensis (Linn.)

Locally, Titlark, Pipit Lark, Meadow Titling, Moor Tit or Titling, Heather Lintie, Moss Cheeper, Ling Bird, Meadow Lark.

Resident, but partially migratory. It occurs commonly throughout the county.

42. Rock Pipit. Anthus obscurus (Latham).

Locally, Dusky Lark, Fieldlark, Seatitling, Sealintie.

Resident. Mr. W. E. de Winton in the Transactions of the Woolhope Club for 1897, p. 269, mentions that on the club visiting the highest part of the Black Mountains, this bird proved to be very plentiful, young in all stages being found. This is somewhat singular as it usually frequents the sea shore.

43. Golden Oriole. Oriolus galbula, Linn.

This beautiful summer migrant has paid several visits to Herefordshire. The specimens in the Hereford Museum were obtained from Weston-under-Penyard and the Chase, Ross. It has also been observed at Stretton Sugwas, at Hay Park, Ludlow (Shrops.), in 1883, and a pair visited Wormington-on-Wye in 1884. Unfortunately the bright yellow of the male draws general attention, and the gun prevents the breeding which would otherwise take place.

44. Great Grey Shrike. Lanius excubitor, Linn.

Locally, Great Butcherbird, Ash-coloured Shrike, Cinereous Shrike, Grey Shrike.

A winter visitant of which three occurrences in the county have been recorded. It has also occurred in the neighbourhood of the Black Mountains, and in Breconshire on the Herefordshire borders. It has been observed in the county by Mr. T. Hutchinson.

45. Redbacked Shrike. Lanius collurio, Linn.

Locally, Lesser Butcher Bird, Flusher, Murdering Pie, Jack Baker.

A summer migrant from May to August; generally distributed throughout the county.

46. Waxwing. Ampelis garrulus, Linn.

Locally, Bohemian Waxwing, Chatterer, Waxen Chatterer.

This beautiful bird has only been recorded in the county once; this specimen is reported to have been seen in the flesh at Baker's, a bird stuffer in Hereford in 1856, and is believed to be the one specimen at present in the Hereford Museum.

47. Spotted Flycatcher. Muscicapa grisola, Linn.

Locally, Beambird, Beebird, Rafterbird, Postbird, Wallbird, Cherrychopper, Cherrysucker, Cobweb Bird.

A summer migrant usually coming early in May and leaving in September; it is abundant in the county. A small albino of this species was presented to the Hereford Museum in 1892 by the Rev. Baskerville Mynors.

48. Pied Flycatcher. Muscicapa atricapilla, Linn. Locally, Coldfinch.

This migrant, which arrives at the end of April and leaves in the autumn, is curiously enough uncommon in Herefordshire. A pair were shot at Sufton in 1889 and seen at Aymestrey. It occurs and breeds at Stoke Edith Park, at Downton, and Eywood, and at Croft; it also breeds in the north-west of the county. Mr. Warde Fowler considers that it may occur oftener in the county than is generally supposed. It has also occurred at Aylstone Hill, Hereford. (Hutchinson.)

49. Swallow. Hirundo rustica, Linn.

Locally, Common Swallow, House Swallow, Chimney Swallow, Barn Swallow.

A common summer migrant from April to October, occurring everywhere in the county.

50. House-Martin. Chelidon urbica (Linn.).

Locally, Martlet, Martin Swallow, Window Martin, Eaves Swallow, Window Swallow.

A common summer migrant from April to October, and generally distributed.

51. Sand Martin. Cotile riparia (Linn.).

Locally, Bank Martin, Pit Martin, Sand Swallow, Bank Swallow, River Swallow.

Common, and one of the earliest of the swallow tribe to arrive, which it does about the middle of March, leaving again from August to October.

52. Greenfinch. Ligurinus chloris (Linn.).

Locally, Green Grosbeak, Green Linnet, Greenbird.

A common resident in the county.

 Hawfinch. Coccothraustes vulgaris, Pallas. Locally, Common Grosbeak, Haw Grosbeak.

Resident and fairly abundant. Ashdown says in the Woolhope Transactions for 1895, that during that winter several immature specimens were brought home for preservation from various parts of the county and had been undoubtedly hatched there. He adds that during the winter of 1890-1, it was abundant in the county, over a score of specimens being sent him for preservation. I have seen it at Fownhope Court and believe it to be on the increase. It often occurs in the neighbourhood of Ross.

54. Goldfinch. Carduelis elegans, Stephens.

Locally, Thistlefinch, Goldspink, Grey Kate, Grey Pate, Proud Tailor, Goldie, King Harry, Redcap.

A resident, and common throughout the county. Bull says that the birdcatchers are exterminating it, but it is to be hoped that it will be recruited from Breconshire where it is still common.

55. Siskin. Carduelis Spinus (Linn.). Locally, Aberdevine.

A resident, rare in summer and partly migratory. It has been seen at Llanwarne, Letton Court, 1883, and near Ross, on the banks of the Wye near Hereford, occasionally at Bromyard, frequently at Kentchurch and also occasionally at Ross. Occurs principally during the winter months.

56. House Sparrow. Passer domesticus (Linn.). Common.

57. Tree Sparrow. Passer montanus (Linn.). Locally, Mountain Sparrow.

A local resident, Dr. Williams of Kingsland, mentions that he has found the eggs of the great tit in the same nest with this bird's eggs.

58. Chaffinch. Fringilla coelebs, Linn.

Locally, Pyefinch, Spink, Pink, Twink, Skelly, Shelly, Shell Apple, Scobby, Shilfa, Buckfinch, Horsefinch, Copper-finch, Whitefinch, Beetfinch, Wet-bird.

Common and generally distributed throughout the county. A nest taken by Mr. Blake in his garden at

Ross had bits of newspaper dotted all over it in place of lichen. He also took an egg at Gorsley half the normal size of a chaffinch's egg and well marked.

59. Brambling. Fringilla montifringilla, Linn.

Locally, Mountain-finch, Bramble-finch, Lulean

Usually occurs in the winter, coming in October and leaving in the spring. It is generally distributed throughout the county, and has been observed at Peterstowe, Gayton Hall, near Ross, and other places.

60. Linnet. Linota cannabina (Linn.).

Linnet, Brown Linnet, Grey Linnet, Red Linnet, Brown Linnet, White Linnet, Linnet-finch, Redheaded-finch, Greater Redpole, Rose Linnet, Lintwhite, Lintie.

A common resident. In some cases the breasts of the old cocks are a beautiful blood-red colour in the spring, but this disappears in captivity.

61. Mealy Redpole. Linota linaria (Linn.).

A rare winter visitant, has occurred very occasionally in the county. Mr. Hutchinson observed a pair in his garden on Aylstone Hill, Hereford, in 1903.

62. Lesser Redpole. Linota rufescens (Vieillot).

Locally, Common Redpole, Lesser Redheaded Finch, Rose Linnet.

A resident and generally distributed in the county. It has been observed at Moreton, Kimbolton, annually at Kingsland, where it breeds (Williams), and is common at Bromyard and the Lugg Meadows, Hereford, where it also breeds.

63. Twite. Linota flavirostris (Linn.).

Locally, Mountain Linnet, Twitefinch, Heather Lintie, Hill Lintie, Yellow-nebbed Lintie.

Scarce. It has been observed on the Black Mountains.

64. Bullfinch. Pyrrhula europaea, Vieillot.

Locally, Bud, Budding Bird, Cock Hoop, Hoop, Hoof, Hope, Tope, Olph, Alp, Red Hoop, Nope.

As might be expected from the number of woods in the county, this is still a common bird, although the late Dr. Bull remarked that it was becoming scarcer in many districts owing to birdcatchers. It may not be generally known that the seed of the common pansy is a very favourite food of the bullfinch, and every summer I have observed them feeding on the seed in my garden.

65. Crossbill. Loxia curvirostra, Linn. Locally, Shell Apple.

An uncommon and irregular winter visitor, seldom remaining long in one place. It has been seen at Baker's, of Hereford, in the flesh, and in 1889 there was a specimen received from Ross. One was shot at Kimbolton in 1869, and a small flock remained in the gardens for a few days in April, 1887. A flock was observed at Bromyard in December, 1894, and another in March, 1895, and a large flock appeared at Withington in November, 1898, and remained for several weeks. They caused great injury to the cider fruit by splitting them and eating the kernels (Pilley). A pair of these birds are in the Hereford Museum, and a pair were also obtained at Pontrilas on 6 April, 1895. This bird seems to visit us at times in considerable

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numbers, whilst in some years it is not to be seen at all. In 1866 there was a considerable visitation, and in 1887-8 they were in great flocks all over the country, some of them staying until quite late in 1888.

 Corn Bunting. Emberiza miliaria, Linn. Locally, Common Bunting, Bunting, Ebb, Bunting Lark.

A rare resident; has nested in the Lugg meadows, Hereford, and at Mortimer's Cross.

67. Yellow Hammer. Emberiza citrinella, Linn.

Locally, Yellow Yowley, Goldspink, Yellow Yeldring, Yellow Yoldring or Yeörling, Yeldrock, Yellow Yite, Yoit, Yellow ammer.

Common, and resident throughout the county.

68. Cirl Bunting. Emberiza cirlus, Linn.

Locally, French Yellow Hammer, Black-throated Yellow Hammer.

Resident, occurring in various localities in the county, notably at Callow Pitch, Birch, Kings Caple, The Chase Ross, Kingsland, Kimbolton, and at Bullingham, where the Hereford Museum specimen was shot. No doubt this species has always bred here, but being mistaken for the yellow bunting, which it somewhat resembles at a distance, has passed unnoticed.

 Reed Bunting. Emberiza schoeniculus, Linn.
 Locally, Reed Sparrow, Black-headed Bunting, Water Sparrow, Mountain Sparrow, Black-bonnet.

Resident, and generally distributed. Quite a common Wyeside bird, and a denizen of our brooks (Blake).

70. Snow Bunting. Plectrophenax nivalis (Linn.).

Locally, Tawny Bunting, Mountain Bunting,
Snowflake, or Fleck.

A rare winter visitant. A specimen was seen in the flesh at Baker's in 1854; one is recorded as having been shot at Pool Cottage, Hereford, in 1856, and is now in the Hereford Museum, and another was killed in February of same year on the Malvern Hills. It also occurred in Hereford in 1881, and one has been shot at Moccas. Dr. Williams says it has been seen occasionally in the neighbourhood of Kingsland.

71. Starling. Sturnus vulgaris, Linn.

Locally, Common Starling, Stare, Sheep Stare, Solitary Thrush, Brown Starling.

A common resident. Dr. Williams says that he has found starlings' eggs with those of the stockdove, and also robins' and jackdaws' eggs with those of the starling. A specimen was killed by Mr. Walter Dew, at Netherton, of a light fawn colour.

72. Rose-coloured Starling, or Pastor. Pastor roseus (Linn.).

Locally, Rose-coloured Ouzel.

There is only one record of this rare and beautiful visitor in Herefordshire, and that is the specimen in the Hereford Museum labelled Garway, 1858, and undoubtedly obtained there.

73. Nutcracker. Nucifraga caryocatactes (Linn.).

A specimen of this very rare visitor was killed on 19 November, 1900, at Credenhill; another was with it, but escaped. The bird was brought to Mr. S. King, of Hereford, as a rare kind of woodpecker, and he also thought such was the case. It ultimately found a place in the Cardiff Museum (J. B. Pilley).

74. Jay. Garrulus glandarius (Linn.).
Locally, Jay Pie, Jay Piet.

As may be expected, this wood-loving bird is a common resident in the county. Dr. Williams records that some years ago he found a jay's nest near Kingsland in a very curious situation. In a small standard oak there was an old squirrel's drey, and a foot above this was the nest of a ringdove. The jay's nest was placed between the two, being built upon the squirrel's drey, so that the ringdove's nest formed its roof.

Magpie. Pica rustica (Scopoli).
 Locally, Pyet, Pianet, Madge, Mag.
 A common resident.

 Jackdaw. Corvus monedula, Linn. Locally, Daw, Kae, Jack.
 Common everywhere in the county.

77. Raven. Corvus corax, Linn.

Locally, Corbie, Corbie Crow, Great Corbie Crow.

A rare resident, only to be found in a few of the wildest districts of the county. A pair nested in the old Scots firs at Kentchurch till about the year 1880, when the keepers shot them. This species formerly nested at Symond's Yat, on the borders of the county. Two were observed overhead at Kentchurch in August, 1889, which possibly had been bred there, and so were homing.

78. Carrion Crow. Corvus corone, Linn.

Locally, Crow, Corbie Crow, Flesh Crow, Gor Crow, Midden Crow, Black Crow, Blackneb, Hoodie.

A common resident. Mr. de Winton, adverting to the scarcity of grouse on the highest part of the Black Mountains in the county, says that he only saw one barren pair, and adds that the absence of any brood was not surprising, considering the presence of great numbers of carrion crows and four lesser blackbacked gulls. Dr. Williams of Kingsland mentions that in 1890, whilst walking near the River Lugg, he heard a carrion crow making a great outcry in an adjoining field. On approaching the spot he found the bird making frantic darts at some object near its nest, which was placed in an elm at least 60 ft. from the ground, and which contained young. Presently he saw a large stoat, pursued by the old bird, run down the trunk. The crow came out victorious in the encounter.

79. Hooded Crow. Corvus cornix, Linn.

Locally, Royston Crow, Dun Crow, Norway Crow, Kentish Crow, Grey Crow, Greybacked Crow, Scarecrow, Hoodie.

A rare winter visitant arriving in October. One is recorded from Llanwarne, and one was shot at Perrystone in 1860, and another at Letton in 1879. The specimen in the Hereford Museum was killed at Kentchurch in 1889. It has also been observed occasionally at Aymestrey, and one was trapped at Upper Dinmore in 1891. Mr. Pilley says that several have been killed in the county since 1899.

One was killed at Much Marcle, and stuffed by Mr. William Elmes (Blake).

80. Rook. Corvus frugilegus, Linn.

Locally, Crow.

A common resident, and generally distributed throughout the county. It has within the last few years somewhat departed from its seed-eating habits, numerous birds having taken to killing young pheasants. It is certainly more subject to albinism than the carrion crow.

81. Sky-lark. Alauda arvensis, Linn.

Locally, Lark, Field Lark, Laverock.

A common resident in the county. Mr. Blake had an albino specimen in his collection.

82. Wood-Lark. *Alauda arborea*, Linn. Resident, but local.

83. Swift. Cypselus apus (Linn.).

Locally, Deviling, Black Martin, Screech, Screech Martin, Shriek-owl, Screamer, Squeaker, Skeer or Skir Devil, Cran.

A common summer migrant arriving in April and leaving in August. Albinism among these birds is very rare, but some years since I noticed a piebald one for two or three years in succession.

84. Nightjar. Caprimulgus europaeus, Linn.

Locally, Night Hawk, Goatsucker, Dor Hawk, Fern Owl, Night Crow, Jar Owl, Churn Owl, Wheel Bird, Eve Churr, Night Churr, Puckeridge.

A common summer migrant, arriving about the middle of May and leaving in September. This bird is also called the 'goat-sucker,' from the absurd idea that it sucks goats, and 'fern owl,' from its flying and feeding at night on our fern-clad hills; but it is well known to ornithologists that it feeds exclusively on night insects, such as moths, beetles, cockchafers, &c. An adult dissected by Mr. Blake some few years ago had its crop filled with white and buff ermine moths. It may not be generally known that this bird drinks when on the wing, gliding along the surface of any still pool.

85. Wryneck. Iÿnx torquilla, Linn.

Locally, Cuckoo's Mate or Leader, Emmet Hunter, Snake-bird, Long Tongue.

A summer migrant, arriving in March and leaving in September. It occurs in the Ross district, and locally throughout the county, but is such a shy bird that were it not for its shrill call it would often be overlooked altogether. A pair once nested in a hole in a dead ash tree in my garden at Talybont. The hen-bird, on coming out of the nesting hole, usually sat on a branch twisting her neck about, and after some time would perch on a bough, very often lengthways, and in such a position was most difficult to see; the cock, when not in the hole, would fly about near the tree, repeating at short intervals his curious shrill cry of 'Quēē, quēē,' but the hen seemed to be always silent.

86. Green Woodpecker. Gecinus viridis (Linn.).

Locally, Wood Spite, Rainfowl, Rainbird, Hewhole, Yaffle, Whetile, Woodwall, Witwall, Popinjay, Awl-bird, Eaqual, Pick-a-tree, Yappingale.

Common and resident in the county. The month of February, 1895, was a most deadly one for the

green woodpecker, when numbers dropped from complete starvation on every side, or were shot by the beekeepers and others in the district of Hereford.

87. Great Spotted Woodpecker. Dendrocopus major (Linn.).

Locally, Pied Woodpecker, French Pie, Woodpie, Whitwall, Great Black and White Woodpecker, Woodnacker.

Resident and fairly distributed throughout the county. It has been observed on Howle Hill, and often occurs in the neighbourhood of Ross.

88. Lesser Spotted Woodpecker. Dendrocopus minor (Linn.)

Locally, Barred Woodpecker, Hickwall, Little Black and White Woodpecker, Crank-bird.

Also resident and fairly distributed throughout the county. Mr. Blake considers this bird more common in the county than the preceding species, especially in the Ross district.

[Great Black Woodpecker. Picus martius, Linn.

Bull has recorded two specimens at Frogmore, Ross, one at Ruckhall Wood, Eaton Bishop, 1874, and one at Belmont in 1879, but it is not admitted by Mr. Howard Saunders to be a British species.]

89. Kingfisher. Alcedo ispida, Linn.

Resident, and occurring throughout the county. Dr. Williams mentions having found a kingfisher's nest under unusual conditions: the bank selected had been worn away by the river until it had come close to the footpath, and underneath this the nest had been placed; the eggs, which were hatching out, lay in the bare soil of the hole. This was the only example of the kind he had ever met with, as in his experience the kingfisher always makes a lining of bones before commencing to lay.

[Roller. Coracias garrulus, Linn.

The only evidence of this beautifully plumaged bird having occurred in the county is from a specimen in the Hereford Museum labelled 'Goodrich, 1857.' I have no doubt but it was obtained in the county, but there are unfortunately no particulars of its capture.]

90. Bee-Eater. Merops apiaster, Linn.

Another beautiful bird that occasionally visits us. Miss S. Hutchinson reported that in 1875 a pair frequented the garden at Grantsfield, Kimbolton, for about six weeks; but unfortunately no further record was kept. Mr. H. A. Forrest, in his Fauna of Shropshire, states that a pair of bee-eaters are said by Decie to have been observed near Tenbury throughout one summer; no year is stated, but it was about 1875, and probably this was the same pair as that seen at Grantsfield.

91. Hoopoe. Upupa epops, Linn.

This very conspicuously coloured bird arrives in the spring. It has occurred several times in the county. One was seen at Callow in 1847, one at Baker's in the flesh in 1856, one was shot at Bullinghope in 1879, another at Aylstone Hill, Hereford, and in September, 1892, one was taken close to the city. The last-named was killed in a meadow at Warham, and was preserved for Mr. Powell of that place.

# BIRDS

92. Cuckoo. Cuculus canorus, Linn. Locally, Gowk.

A summer migrant, arriving in April and leaving in August. I have frequently seen the young cuckoo in the middle of September. In the Woolhope Transactions for 1896 Dr. Williams mentions an instance that came under his notice of a cuckoo hunting for a nest in which to deposit her eggs before she was ready to lay.

93. Barn Owl. Strix flammea, Linn.

Locally, White Owl, Yellow Owl, Screech Owl, Gilly Howlet, Howlet, Madge Howlet, Church Owl, Hissing Owl.

A common resident in the county, but hardly so common as formerly. Regarding the nesting of this bird in the county Dr. Williams remarks that in 1893 he found a stockdove had taken possession of, and laid one egg in a hole of a tree which had frequently been used as a nesting-place by a barn owl. About a week later a barn owl flew out of the hole, and ten days later the owl was found sitting on four of her own eggs and that of the stockdove, having driven the latter away. I fear they are not very plentiful in that part of the county near Hay, as some years ago nine were brought in one year to a local bird-stuffer for preservation. In the Woolhope Transactions for 1884 it is remarked that the brown and barn owl are nearly as numerous as formerly, the latter perhaps rather less so, owing to the mistaken zeal of some farmers.

#### 94. Long-eared Owl. Asio otus (Linn.).

Resident, and occurs occasionally in different parts of the county. Its numbers are increased in autumn by migrants from the continent. One was killed at Widemarsh, in 1878, and another at Lyde in 1881. The specimen in the Hereford Museum was killed at Wilton, near Ross. It has nested at Shobdon and Croft, and has also been seen at Berrington. A fully adult pair were brought to Ashdown by Mr. Seal of Upper Dinmore, killed there on November, 1892. This species is less plentiful than the barn owl.

95. Short-eared Owl. Asio accipitrinus (Pallas).

Locally, Woodcock Owl, Short-horned Owlet, Mouse Hawk, Hawk Owl.

A rare winter visitor to the county, where also very few have been observed. Large numbers arrive from the continent in the autumn. The following have been shot in the county: one at Kington, one at Mordiford, one at Marden, one at Ross and in 1890 one near Ross, now in the possession of Mr. T. Hutchinson; another is in the Hereford Museum, and Mr. Garstone shot one at Belmont in 1890. In November, 1893, Ashdown purchased a fine female specimen at Hereford. Mr. Saunders says the young are tawny on the under parts, and I have killed a bird late in the year with its breast a rich yellow colour instead of the usual light shade.

96. Tawny Owl. Syrnium aluco (Linn.).

Locally, Brown Owl, Wood Owl, Hoot Owl, Ivy Owl, Jenny Howlet.

A resident and one of the commonest of all the owls. This is also a most useful bird for the farmer, although not perhaps quite so useful as a killer of rats

and mice as the barn owl. It may not be generally known that there is a grey variety of this bird, which, although occurring on the continent, is not common with us. Mr. Blake has a stuffed specimen of this variety shot on the Ross Estate thirty years ago.

[Tengmalm's Owl. Nyctala tengmalmi (J. F. Gmelin).

The only record for the county is a specimen in the Hereford Museum which has no history, but as one of this species was captured near Kidderminster on 17 November, 1902, it is not improbable that it has also occurred in Herefordshire.]

97. Little Owl. Athene noctua (Scopoli).

Locally, Little Night Owl, Sparrow Owl.

A rare visitor. The Rev. F. O. Morris, in his book on *British Birds*, reports one specimen from Herefordshire in 1838. One was taken at Bredwardine and another seen at Gayton Hall, Ross (Blake). It may be confidently expected that others will be observed, as the late Lord Lilford turned out a great many at Oundle, and it is probable that in the course of time they will spread all over the country. It has also been turned out at intervals by other ornithologists, a pair being liberated at Fawley by Mr. J. Skyrme, so that in certain localities it has almost become acclimatized.

[Marsh Harrier. Circus aeruginosus (Linn.).

There is a very good example of this bird in the Hereford Museum, but I have not been able to find out where it was obtained. It is quite possible, however, that it was captured in the county.]

#### 98. Hen Harrier. Circus cyaneus (Linn.).

Resident, but becoming very rare, for which the gamekeepers are to be blamed. It formerly frequented the neighbourhoods of Ross, Breinton, Monnington, and Bredwardine. One was shot at Wen End, Ross, in 1873, by Mr. Phelps (Blake). Mr. Home records one killed at Whitney in 1878, one at Bedstone, one seen at Moccas Court, and another at Llanwarne in 1854. One was shot at Lewson, near Whitchurch, in 1880. In 1884 Mr. Southall, in a paper read to the Woolhope Club, remarked that in the neighbourhood of Ross two had been killed within the last twenty years (probably one is mentioned above, and possibly others not recorded), but it was probably never plentiful in Herefordshire. A specimen was killed at Flaxley Abbey, near Micheldean, on the borders of the county (Blake).

99. Common Buzzard. Buteo vulgaris, Leach. Locally, Puttock.

Now no longer common, although still fairly plentiful in the adjoining county of Brecon. It bred at Bishopswood in 1881, occurred at Goodrich Castle in 1886, and at the Dowards, Penyard Wood, Ross, and Peterchurch. In 1883 a fine specimen was trapped on the Leys Estate, and its partner was seen in the neighbourhood. In September, 1890, several buzzards passed over Graftonbury, and a fortnight later Mr. Andrews of Much Birch sent Ashdown a good female for preservation. A little later in the year Ashdown received a very interesting immature bird (probably bred in the county). Mr. Southall remarked some years since that the gamekeepers had destroyed nearly all the large birds of prey in the

county. A female was sent to Ashdown by Dr. Walker of Weobly on 28 October, 1894, for preservation, and one or two specimens are reported to have been seen since 1899 (Pilley). In the spring of 1906 it nested in the neighbourhood of Ross.

100. Rough-legged Buzzard. Buteo lagopus (J. F. Gmelin).

A rare autumnal visitor of which I can record only one instance, namely, one killed at Yatton Court, Kingsland, in November, 1879. I have, unfortunately, no information as to its capture or sex.

101. White-tailed Eagle. Haliaetus albicilla (Linn.)

Although this must be deemed a rare visitor yet it seems to have occurred in this county on several occasions. A specimen was trapped at Hampton Court in the early fifties, and another was killed at Berrington, near Leominster, in 1875. The magnificent specimen in the Hereford Museum was first seen near Leominster, and shot in the dusk by a Mr. Gordon on 7 November, 1896, at Dinchope, near Craven Arms. It is a hen bird, probably in the third year from the colour of its tail, which is still brownish. This bird does not attain its full plumage until the sixth or seventh year, and in old birds the tail is white, whence its name.

102. Sparrow Hawk. Accipiter nisus (Linn.). Locally, Pigeon Hawk.

A common resident. Mr. Southall remarks that of all the birds of prey this and the kestrel are alone common in the county. As an instance of the disparity in size between the sexes of this bird, Mr. Blake mentions that of a pair shot from the nest in Gorsley Wood, the male weighed 5 oz. and the hen exactly double.

103. Kite. Milvus ictinus, Savigny.

Locally, Glead, Glade, Gled, Red Kite, Forktailed Kite or Glead, Puttock, Crotchettailed Puttock.

Formerly resident, but it is to be feared now extinct in the county. A pair in Ludlow Museum were shot some years ago at Brampton Bryan Park, where they nested. One was seen at Symond's Yat in 1884, another was killed at Strickstenning, Much Birch, and the last captured specimen was taken at Symond's Yat, and is now in the Hereford Museum. One was also seen between Adzor Coppice and Lawton's Hope in August, 1899. In 1884 Mr. Southall wrote that though formerly plentiful, this bird was then only seen at intervals.

104. Honey Buzzard. Pernis apivorus (Linn.).

A summer migrant arriving in May and leaving in November. A pair of these birds was shot on Capt. McCalmont's estate at Bishopswood, near Ross, on 10 July, 1895, and sent to Ashdown for preservation, who mentions that he found a ridge of wax matter on the under mandible of the male. A nest was afterwards discovered in the neighbourhood containing two eggs, both of which, however, were unfertile. One was trapped at Credenhill Camp about 1861. A male was killed at Queen's Wood, Gorsley, near Ross, and a female at Newent Wood, where it had nested and laid three eggs. Instances are recorded of this bird breeding at Whitfield in 1877 and 1880;

and in the former year the young birds were taken and the female trapped. In 1895 it bred at Bishop's Wood, Ross, when the eggs were taken and the old birds killed. The specimen in Hereford Museum was killed in Goodrich in 1879, and presented by Mr. Moffat of Goodrich. The late Mr. Skyrme also had a female with two eggs obtained in the county. From the above it will be seen that the county of Hereford is peculiarly adapted to its habits and requirements, and that if only it had a chance it might be observed every year. It is to be hoped, however, that for the future, as the love of birds seems increasing in the country, this beautiful visitant may be allowed to breed.

105. Peregrine Falcon. Falco peregrinus, Tunstall. Locally, Hunting Hawk.

Now a rare visitor only, but formerly bred in the county, when it seems to have been fairly often observed. In the museum at Hereford there are two specimens from Ross and two from Garnons. One was shot at Stoke Edith in 1855, one at Alton Court in 1857, one at Ross in 1865, and one at Leominster in 1866. Other records are a pair seen at Letton in 1883-4, one shot at Hele Court, Ross, in 1884, a fine female killed in the act of striking a pigeon on a meadow adjoining Llanwarne Court on 12 January, 1895, and another killed at Ross in 1889; this lastnamed specimen was preserved by Ashdown, who also purchased a very good male in the autumn of 1890 which was shot in the Lugg Meadows, and sold to the late Mr. Evans of Fownhope. Another female example was killed at Weobley in 1891 and duly preserved. Mr. Southall remarked in 1884 that this species had been well nigh outlawed, and was then of very rare occurrence.

106. Hobby. Fako subbûteo, Linn.

This summer visitant, which arrives in May and leaves in September, although comparatively harmless, seems to have been accorded the same inhospitable reception in the county as other birds of prey, and is consequently rare. It occurs most years at Stoke Edith, and has been observed at Aconbury, Caplar, Haugh Wood, Bullingham, and Breinton. A pair nested on the Lever Hill, Kimbolton, and were shot, and the clutch of eggs is in the possession of Miss S. Hutchinson. A pair bred at Edvin's Wood, Bromyard, in 1895, and Mr. Southall records its having bred near Hereford a few years previous to 1884. Two local specimens, both females, were received by Ashdown; one in the winter of 1890, shot by Mr. Bellamy at Hampton Bishop, and another by Mr. Thompson at Dinedor in November, 1892. It is strange they both should have stayed so late in the year, though Mr. Howard Saunders remarks that many occurrences during our winter months are on record; another specimen was killed near Ross in the spring of 1893, and there are also several good county specimens in the museum. In 1895 Mr. Blathwayt reported that during the month of August his son had several times seen three hobbys in a wood in the neighbourhood of Bromyard. Another was killed in Penyard Wood, near Ross, by Mr. Thomas's keeper, and was preserved. About the middle of December, 1905, one was killed in Coldborough Wood, Yatton, by a Perry-stone shooting party, but, unfortunately, it was not preserved.

107. Merlin. Falco aesalon, Tunstall.

Locally, Stone Falcon, Blue Hawk.

Occurs at intervals in various parts of the county. One was killed at Kinnersley in 1845; another was seen at Llanwarne in 1858; one was killed at Belmont in January, 1876; one near Hereford in 1893, and another at Backney Common, near Ross, on 18 December, 1899. A female was also taken on 19 January, 1895, by Mr. Spencer, at Clehonger. Three were killed in the latter part of 1890 in the county; another one was killed at Dorstone in the spring of 1892, and another at Kingsland in the early part of 1893. Mr. W. de Winton has a fine local specimen, a male, which he lent to the Hereford Museum; and in December, 1893, Mr. Price, of Winforton, brought Ashdown a fully adult female for preservation.

108. Kestrel. Falco tinnunculus, Linn.

Locally, Windhover, Creshawk, Hoverhawk, Stannel or Stannel Hawk.

A common resident in the county, but not so common as formerly; it is a most useful bird to the farmer, and preys principally on mice and rats, and should for this alone be carefully preserved. It will, however, take very young pheasants, and when once it begins will go on until it takes every bird from a coop; and it is this habit, I fear, that has caused it to be killed by the gamekeeper and to become much scarcer in the county. Dr. Williams gives a curious instance of its nesting habits. In 1888, whilst strolling along the River Arrow, he noticed a carrion crow's nest high up in a large poplar; the nest contained well-fledged young birds, judging by the noise they made, and these the parents were busily employed in feeding. Whilst passing the nest shortly afterwards he saw a kestrel and the two parent crows, evidently quarrelling, fly out of it. A fortnight later, on revisiting the spot, he again saw a kestrel fly from the tree, and then he noticed that there was a large nest in the same tree placed some 20 feet below that of the crows, which he concluded to be the kestrels' nest. The following day he had the higher nest examined, and this was found to be lined with the feathers of the unfortunate young crows, and inside lay five very handsome kestrel's eggs. The kestrels had not only annexed the crows' nest, but had evidently eaten the young birds. Some three weeks later the female was shot by the owner of the land, and when the nest was examined for the second time it was found to contain a second clutch exactly resembling the first clutch. The fact of the kestrels killing and eating the young of such a pugnacious bird as the carrion crow is most singular.

109. Osprey. Pandion haliâêtus (Linn.).

Locally, Fishing Hawk, Mullet Hawk.

This rare fishing hawk seems to be only a very occasional visitor to the county, there being no large lake to suit its habits. One was shot at Fownhope in October, 1879, and is in the possession of Mr. Blake. Three instances are recorded of this bird having been observed on the Wye near Clyro, and as one was about for some time, it must often have crossed the border into Herefordshire in its wanderings up and down the river. One of these is now in the Hereford Museum.

IIO. Common Cormorant. Phalacrocorax carbo (Linn.).

Locally, Crested Cormorant, Corvorant, Great Black Cormorant, Cole Goose, Scart.

Visits the Wye and other rivers in the county occasionally. One was shot on the Wye near Ross in 1856; one on the Lugg; another on the Wye near Hampton Bishop in 1876; one on a brook at Tarrington in 1878; and another on the Lugg near Mordiford in 1881; these last two specimens are now in the Hereford Museum. On 12 November, 1902, Mr. Peachey shot a cormorant on the Wye near the osier-bed on the upper side of Wilton Bridge, and Ashdown, the taxidermist who stuffed the bird, reported that it contained thirty or forty leeches; this is very singular, as I do not remember ever hearing that leeches were eaten by these birds. The bird had most probably been blown inland during a recent gale, and was probably ravenous and exhausted. Two cormorants were seen on 21 September, 1905, on the Wye near Ross, and one of them was shot.

III. Shag or Green Cormorant. Phalacrocorax graculus (Linn.).

Locally, Crested Cormorant, Crested Shag, Scart,

This being essentially a sea bird is only a rare visitor, but has, however, occurred several times in the county; one was killed on All Saints' Church, Hereford, in 1876, and another at Eardisley in February, 1898. An immature specimen sent in by Mr. Blake, killed near Ross in January, 1892, is in the Hereford Museum, and another was presented by Colonel Reid to the museum, which was shot at Eardisley on 22 February, 1898.

112. Gannet or Solan Goose. Sula bassana (Linn.).

This bird, being seldom or ever seen away from the sea, hardly ever occurs inland except after violent gales, when it is usually carried along by the wind inland until it falls exhausted. One was shot near Hereford in 1876; another was found at Peterchurch, probably an exhausted bird; and one was shot by a Mr. James, near Mordiford, in 1881. One was picked up near Preston on Wye vicarage in 1881.

[Tropic Bird. Phaethon aethereus.

One is said to have been found dead in Herefordshire more than forty years ago (J. H. Gurney, *Trans. Norf. Soc.* v, 659).]

113. Common Heron. Ardea cinerea, Linn.

Locally, Hern, Heronshaw, Hernshaw, Heronseugh, Crane.

A common resident. Mr. Southall, writing in 1884, says that this bird still occurs in the county, but in 1892 Ashdown mentions that it was ruthlessly shot down on every hand, numbers of immature specimens reaching him every winter; he adds that a remark ably clear heron, at least six or seven years old, was shot early in 1892 by Mr. Paul Broustet at Grosmont. There seem to be no large heronries in Herefordshire. In 1899 the heron nested in the following places in the county: Castle Green, Bredwardine, six nests; Garden Wood, Eywood, three nests; Small Wood, between Titley and Eywood, three nests;

Burfa Wood, near Knill, through which the county border runs, four nests; the park at Canon Frome Court, from five to eight nests, and one other nest about 200 yards away; Letton, two nests; and on the island in Berrington Park Pool, seven nests. I have known a heron to be found with its crop filled with field-mice, a somewhat curious diet for this bird. In 1894 a very interesting specimen was sent in by Mr. Matthews of Ross, and is now in his possession, which had a black breast with little or no white feathering (Ashdown). Evidently a specimen approaching melanism.

### 114. Squacco Heron. Ardea ralloides, Scopoli. Locally, Buff-coloured Egret.

A very rare visitor. A flock of five was recorded at Old Weir on the Wye in 1873, out of which one was shot; on 3 May, 1867, another was shot by Captain Hotchkis on the Wye near Hay, on the borders of Herefordshire, and was in the collection of the late Mr. Baskerville of Clyro Court, Hay, who kindly favoured me with these particulars. It was stuffed by the late Mr. Shaw of Shrewsbury, who stated that it was the best specimen that ever passed through his hands.

### 115. Night Heron. Nycticorax griseus (Linn.). Locally, Spotted Heron, Night Raven.

There is a specimen of this very rare spring and autumn visitor in the Hereford Museum, labelled Backney Marsh,' of which I have no further information, but it is certainly most probable that it was killed there. Mr. Blake says there is no reason for doubting the authenticity of this bird, as Mr. Moss, who preserved it, was a careful observer. Ashdown wrote that in the early part of 1891 he purchased a night heron, set up in a case, at a sale in Hereford; the bird, which was sent from Leominster, had been preserved by a local man, and a local paper, dating back some fifteen years, was discovered under the mounting; he strongly suspected this specimen to be a bird taken in the county. Mr. Blake of Ross, who kept one of these birds alive, said that it usually shed its white crest-feathers in November and grew new ones by February. During the three years he kept it he tried in vain to find these crest-feathers when shed, and he is strongly of opinion that the bird swallowed them. He finally parted with the bird, and sent it to the well-known ornithologist Mr. J. H. Gurney of Norwich, who said it was one of the most interesting birds he ever kept.

#### 116. Little Bittern. Ardetta minuta (Linn.).

According to the late Rev. F. O. Morris's British Birds, a specimen of this very rare bittern was shot at Shobdon Court in 1838, and the late Mr. Walcot of Worcester had a male specimen which had been shot in Herefordshire; but there is one in the Cardiff Museum stated to have been killed at Llangorse Lake, which is about ten miles from the borders of the county. As it is only an occasional summer visitor, it may often escape observation from its shy and skulking habits.

# 117. Common Bittern. Botaurus stellaris (Linn.). Locally, Miredrum, Butterbump, Bogbumper, Bittour, Bumpycoss, Bull of the bog, Bogblutter, Bogjumper.

Formerly a not uncommon resident here, but now very rare, if not extinct, and at the best only occurs

from time to time as an occasional visitor. The Hereford Museum specimen was shot at Eastnor Castle in 1854, and was one of a pair which might have bred if unmolested: Other specimens have been shot at Backney Marsh in the same year, Staunton on Wye in 1861, Staunton Common in 1861, Fawley in 1879, Sellack in 1880, Dulas in 1887, and one was seen at the Moor Hay in 1885. A good naturalist also showed me the spot, on the side of the Midland Railway not far from the borders of the county. where in a little wet space by the side of the line he saw a bittern standing in the rushes. Mr. Blake was informed by Mr. R. Pashley of Kerme Lodge that he heard the booming of a bittern in the locality, and he made a special journey and spent an hour in the twilight in the hope of hearing the note. but his efforts were not rewarded.

# 118. Glossy Ibis. *Plegadis falcinellus* (Linn.). *Locally*, Black Curlew.

Only of accidental occurrence. About the third week in December, 1902, one was observed wading in a small pool at Winforton, and was shot as it rose; it is stated that a second bird was observed in the neighbourhood, but of this there is no proof. The nearest points to this in which specimens have been obtained are Carmarthenshire in 1858 and Shropshire in 1854, where two occurred near Sundorne.

#### 119. Grey Lag-Goose. Anser cinereus, Meyer.

This, the common wild goose of Great Britain, may sometimes be seen passing over at a great height in very hard weather. It is singular that there should not be a specimen in the Hereford Museum. Ashdown mentions that in January, 1890, several wild geese were taken in the county, but were eaten and never identified. I think, however, it may be fairly assumed that some were grey-lags. In 1906, Mr. Blake of Ross, reported that a flock of wild geese passed over the town in the first week in January, one of which was shot, but it was sent away before he could see it.

#### 120. White-fronted Goose. Anser albifrons (Scopoli).

An occasional winter visitor to the county in severe winters. Two were shot near Ballingham in 1880, and one at Weir Cliff on the Wye in 1885. In 1884, Mr. Southall writes, 'Small flocks of geese still favour us with a visit, chiefly Brent and White-fronted species.' In January, 1890, a male was shot by Mr. Bellamy at Hampton Bishop.

#### 121. Bean Goose. Anser segetum (J. F. Gmelin).

A rare autumn visitor, returning in the spring. The Hereford Museum specimen was shot at Mordiford in 1882. Both this and the preceding species have occurred several times in the adjoining county of Brecon.

#### 122. Pink - footed Goose. Anser brachyrbynchus, Baillon.

Like the last-named, a rare visitor, coming and going at the same time. One was killed at Moccas in the winter of 1879-80, and the specimen in the Hereford Museum was shot at Lugg Mills, near Hereford, in the same winter.

# 123. Bernacle Goose. Bernicla leucopsis (Bechstein).

A rare visitant. Only one is recorded, and that is a female shot at St. Weonard's, but the date is not given.

# BIRDS

124. Brent Goose. Bernicla brenta (Pallas). Locally, Black Goose, Ware Goose.

An occasional visitor. One shot at Ross in 1882, has since been presented by Mr. Blake to the Hereford Museum. Ashdown writes that Mr. F. P. Powell, jun., of Dorstone, forwarded to him a specimen killed in that locality on 7 October, 1895. This is essentially a sea-bird, and very rarely occurs inland except in severe winters.

#### [Canada Goose. Bernicla canadensis (Linn.).

This is a partly domesticated species, and there is no evidence that the wild American birds visit us (Saunders). Still, one can hardly account for the large flocks occasionally seen in this country, such as a flock of twenty seen at Goodrich, and another of five in the same place in January, 1886. One was shot, and is in the possession of Mr. W. Blake of Ross, who afterwards purchased another specimen shot in the same place on 3 February, 1897.

[Egyptian Goose. Chenalopex oegyptiaca (Linn.).

One shot at Hengoed, near Kington, and two by the late Mr. Philip Morris of Hereford; most likely escaped specimens, as the bird is often kept on various ornamental waters.]

125. Whooper Swan. Cygnus musicus, Bechstein.

Locally, Hooper, Wild Swan; Whistling Swan,
Elk.

A rare visitor in very severe winters only. One was shot near Ross in 1854, and a flock was seen on the Wye in the winter of the same year; five were also seen at Whitney, one of which was shot and is now in the Hereford Museum.

### 126. Bewick's Swan. Cygnus bewicki, Yarrell.

Like the last-named species, a rare visitor in very severe weather only. Two specimens were obtained in January, 1891, near Ross; one was killed near Kerne Lodge, and was preserved for Mr. R. Pashley of that place; and the other was killed on the Wye, between Pencraig and Goodrich Castle, and was purchased for the Hereford Museum; both were immature. Another specimen was killed on the Wye by Mr. A. Armitage, in the winter of 1885-6, near Dadnor (Blake). On 25 December, 1890, Mr. Oliver Power saw a flock of four and killed two on the Wye, in the Ross district, which were preserved.

127. Common Shel-Duck. Tadorna cornuta (S. G. Gmelin).

Locally, Shield or Sheld Drake, Burrow Duck, Shelgoose, Bar Goose.

An occasional visitor. One was shot on the Wye in 1877, and the Hereford Museum has two specimens, one of which was shot at Moccas in 1879, and the other at Whitney in 1882. One was killed by Mr. Lydiatt near Dinedor in November, 1889, and a female was shot near Pontrilas by Mr. Broustet in 1891. Mr. Southall says: 'The Sheldrake also occurred in the county in 1884.'

#### 128. Ruddy Sheld-duck. Tadorna casarca (Linn.).

Mr. Elliott of Holme Lacey shot one of a pair in August, 1892, at Holme Lacey, which may safely be recorded as a true specimen, being much smaller than the bird contained in the Hereford Museum, which is undoubtedly an exotic (Ashdown).

129. Mallard. Anas boscas (Linn.).

This bird is resident and common in the county, and is likely to remain so, as it is bred now and hand-reared in large numbers for the purposes of sport.

[Gadwall. Anas strepera, Linn.

A rare visitor. There is one specimen in the Hereford Museum, probably a county one, but there is no history with it. It has, however, occurred in both the adjoining counties of Brecon and Radnor.]

130. Shoveler. Spatula clypeata (Linn.).

Locally, Broadbill.

Also a rare visitor. One was shot at the Mynde in 1858, and another at Leominster a few years since. An immature male was killed by Captain Heygate on 22 November, 1892, on the pond at Buckland, Leominster.

#### 131. Pintail. Dafila acuta (Linn.).

Locally, Cracker, Winter Duck.

Three were killed at Whitney in 1878, and two at the same place in 1880, but Ashdown throws some doubt on the first occurrence. In 1894, however, Mr. Turner of Lugwardine, shot at a pair, killing one, a beautiful male, and had it preserved.

132. Teal. Nettion crecca (Linn.).

A common resident in the county, especially in winter. Mr. Southall says the teal and wigeon come next to the mallard in point of numbers.

133. Garganey. Querquedula circia (Linn.).

Locally, Summer Duck, Summer Teal, Pied Wigeon.

A rare summer visitant, coming in March and leaving us in the autumn. One was killed on the Wye between Moccas and Canon Bridge in 1882, and a pair were seen on a pool near Leominster, in the spring of 1893; the male, a very fine bird, was preserved.

134. Wigeon. Mareca penelope (Linn.).

Locally, Whewer, Whin.

A common winter visitor. A handsome pair were shot at Hampton Park on 10 December, 1894. Many others have from time to time occurred in the county during the winter.

135. Common Pochard. Fuligula ferina (Linn.).

Locally, Dunbird, Red-headed Wigeon, Redheaded Poker, Eyed Poker.

A fairly occasional winter visitor. Ashdown says it occurs in Herefordshire almost every winter. Several have been obtained near Ross, Mr. Blake having a pair from that district.

136. Tufted Duck. Fuligula cristata (Leach).

A winter visitant, occurring in hard weather in fair numbers. The Hereford Museum specimen came from Ross. Two were obtained in the winter of 1879-80, one from the Lugg near Moreton, and one from the Wye at Whitney. One was killed at Holme Lacey on 18 January, 1894, in immature plumage, and on 15 February, 1895, a male with a very long crest was obtained by Mr. Blake, killed near Ross.

137. Scaup Duck. Fuligula marila (Linn.). Locally, Spoonbill Duck.

A winter visitor, departing in the spring, and of much less frequent occurrence here than the lastnamed duck. One was seen in the flesh at Baker's in 1855. In December, 1890, Mr. W. Merewether shot a female near Hereford, and in January, 1892, another female was killed by Mr. Turner at Lugwardine. On 8 January, 1894, Mr. Wyndham Smith of Aramstone, near Ross, forwarded Ashdown an adult female for preservation, which had been killed near there. On 31 December, 1895, a pair were killed on the Wye near Fawley. On examining their gizzards Mr. Blake found a number of the marine bivalve (Nucula nucleus), which would point to the birds having come from the coast only a few hours previously.

138. Goldeneye. Clangula glaucion (Linn.).

Locally, Brown-headed Duck, Grey-headed Duck, Red Wigeon, Golden-eyed Wigeon, Morillon, Rattlewings.

A fairly common winter visitor, arriving in October and departing in the spring, and is frequently killed in severe weather here. The Hereford Museum specimens were obtained at Fawley and Weobley. Ashdown says it frequently occurs in the frosty season in the county. In January, 1892, a fully adult female was shot at Moccas, and by a curious coincidence an adult male was killed in January, 1893, at the same place; both were set up in one case for the Rev. Sir George Cornewall, bart., of Moccas Court. In February, 1894, an adult male was shot by Lieutenant James Trevor, on the Wye, and brought to Ashdown for identification. As a rule, the specimens obtained here are immature, and an adult male in perfect black and white plumage is most rare.

139. Common Scoter. Oedemia nigra (Linn.).

Locally, Black Duck, Black Diver.

In hard weather this species is distributed over the various rivers and ponds in the county. On these occasions it sometimes visits the upper reaches of the Wye in Herefordshire. A beautiful specimen was taken at Goodrich in 1891, and was purchased by the committee for the Hereford Museum, and a male specimen of this bird was shot and brought to Ashdown on 13 January, 1894.

140. Goosander. Mergus merganser, Linn.

Locally, Dun Diver, Sparling Fowl, Jacksaw, Sawbill.

A winter visitor here, and in hard weather in some numbers. A pair were seen near Sellack in the winter of 1854-5, and another at Baker's, Hereford, in 1855. One was found dead in the Wye, near Ross, in 1880, and another shot near Dinedor in 1889. Mr. Blake reported that two female goosanders were shot near the Weir End, Ross, by Mr. Griffin, jun., of the Cleeve Farm, in December, 1902. Mr. Blake adds that he has now seen six female goosanders and only one male specimen, which latter came down the Wye dead on some floating ice. The preponderance of females over males quite agrees with my own observations both on the Wye and Usk, flocks of more than twenty having been seen fishing on the Usk near Buckland without a male among them.

141. Red-breasted Merganser. Mergus serrator, Linn Locally, Red-breasted Goosander.

This winter visitor is a much rarer bird than the last-named, and occurs very occasionally on the Wye. One was shot at Fawley on the Wye in 1890, by Sir Edward Cockburn's son. Some years since I saw the skin of a beautiful male that the late Mr. H. Gwynne-Vaughan had killed in the upper reaches of the Wye not far from the boundary of the county. A male was killed in the county in January, 1905.

142. Smew. Mergus albellus, Linn.

Locally, Smee, Red-headed Smew (for young), White Nun, Lough Diver, White-headed Goosander, White Merganser.

A very scarce winter visitor. The specimen in the Hereford Museum was most probably shot in the county. Mr. Blake has in his collection a perfect adult female killed on the Wye near Ross in 1895, and also a male obtained by Mr. de Winton. I have observed it once or twice on the Usk, and a most perfect male specimen was killed there in 1891.

143. Ring Dove or Wood Pigeon. Columba palumbus, Linn.

Locally, Ring Pigeon, Cushat, Cushie Doo, Queest or Quist.

A common resident, its numbers being greatly augmented in the autumn by the arrival of many foreigners.

144. Stock Dove. Columba oenas, Linn.

Locally, Stock Pigeon, Wood Pigeon, Wood Dove.

A common resident, and has greatly increased during the last few years. Mr. Southall stated in 1884 that they were common in the county.

[Rock Dove. Columba livia, J. F. Gmelin.

Locally, Wild Pigeon, Rock Pigeon, Wild Dove, Doo, Rockier.

This dove which is usually to be found in the various caves on different parts of the sea coast, can only be considered a very occasional visitor to the county, and even this is doubtful. Mr. Pilley states that the rock doves supposed to occur at the Stanner Rock, Kington, are stock doves, and Mr. Southall says that he does not think the rock dove can be considered more than an occasional visitor.]

145. Turtle Dove. Turtur communis, Selby.

Locally, Turtle, Common Turtle, Ring-necked Turtle, Wrekin Dove.

A common summer migrant from May to October.

146. Pallas's Sand-grouse. Syrrhaptes paradoxus (Pallas).

Mr. B. Sanders of Kingsland states that some years ago (probably 1888) some small grouse flew low down over his head while playing tennis. They were travelling northward, and could only have been sand-grouse. Successive waves of these birds have reached the country from time to time, but the largest immigration was in 1888.

147. Black Grouse. Tetrao tetrix, Linn.

Locally, Black Cock, Black Game, Heath Cock, Heath Poult, and the female, Grey Hen.

An occasional resident. It occurs at Cusop and the Black Mountains, particularly in the neighbourhood of Crasswall, two black cocks being shot on Cusop Hill on 10 September, 1900. It has also been shot at Stoke Edith, Hampton Court, and Shobdon. On 22 November, 1894, the Rev. G. H. Davenport forwarded to Ashdown a grey hen taken at Foxley. If the grey hens were spared for a few years this beautiful game bird would undoubtedly increase.

148. Red Grouse. Lagopus scoticus (Latham).

Locally, Red Game, Moor Game, Muir Fowl,

Moor Bird.

Occurs sparingly on the Black Mountains and other high ground. It has been killed at Peterchurch and also observed at Wapley Camp on the Radnorshire border. Mr. W. de Winton mentions having seen a barren pair of red grouse on the Black Mountains in 1897.

149. Pheasant. Phasianus colchicus and P. torquatus,
Linn.

The late Mr. Horne of Hereford, who was an excellent authority on pheasants, procured some fine specimens of P. colchicus from the banks of the Phasis, now called Rion. I have seen a magnificent darkcoloured cock at his house at Hereford, and as he sold eggs and birds he has no doubt been the means of reintroducing this splendid bird to the county. The principal pheasant, however, in Herefordshire is the Chinese ring-neck, P. torquatus, which has been the common pheasant of this country for the past seventy or eighty years. A fine example of a hybrid between P. colchicus and Reeve's pheasant was shot in the grounds of Mr. Smith of Garnstone, Weobley, on 25 January, 1894. Dr. Williams of Kingsland mentions that in 1886 a keeper pointed out to him what he thought was a jay's nest, but on examination it was found to contain five warm pheasant's eggs. A great many crosses in various stages, of colchicus, and torquatus, occur in the county.

150. Common Partridge. *Perdix cinerea*, Latham. *Locally*, Grey Partridge.

A common resident, and I hope long will remain so. Specimens with white instead of chocolate-coloured horseshoes on the breast seem to be on the increase during the past few years.

151. Red-legged Partridge. Caccabis rufa (Linn). Locally, French Partridge, Guernsey Partridge.

The late Dr. Bull wrote: 'This is an introduced species, and is now a resident,' but I doubt the correctness of his statement. This species I believe has of late years been gradually spreading westward, and is now to be found in parts of Wiltshire, notably near Swindon, where years ago such a bird was unknown. In this manner it is probable that it has gradually spread across Gloucestershire into Herefordshire. In 1884 Mr. Southall said that this bird was on the increase in Gloucestershire, and that its occurrence in this county of late had then been more frequent. A few have been shot in the county, generally near the Gloucestershire border (Hutchinson). A brace were shot at Munderfield, Bromyard, in October, 1897, and the Hereford Museum specimens came from Eaton Bishop and Fawley.

152. Quail. Coturnix communis, Bonnaterre.

A summer migrant, very occasionally staying with us all the year. A few are shot in the county most

years. In September, 1892, two examples were killed at Tram Inn. Major Money Kyrle informs me that he once shot a brace of quails on Marcle Hill in September, and a live quail was caught in Commercial Road, Hereford, on the night of 14 October, 1892. Mr. Pilley says they were very numerous in the spring of 1893, and Ashdown records that several specimens were sent to him during October and November of that year. On the Pengethley estate in the vicinity of Ross there is a field called 'The Quail Field' in the ancient terrier of the property.

153. Landrail or Corn-crake. Crex pratensis, Bech-

Locally, Meadow Crake, Daker Hen.

A summer migrant, and common from April to October. For some reason or other it has not been so plentiful the last few years, and in 1906 and 1907 it was decidedly scarce.

154. Spotted Crake. Porzana maruetta (Leach).

This summer migrant occurs in this country from April to October, a few remaining until December. It frequents bogs where it breeds, but is decidedly rare in Herefordshire. It is mostly to be met with in the Lugg district; two were shot on the Wye near Hereford in October, 1875. On 15 November, 1905, one was killed at Trerible Farm, Llangarren, by Mr. Harry Rudge, and is now in the possession of Mr. William Blake of Ross, who adds that no record has been noted of the occurrence of this species in the county for about thirty years.

155. Water-Rail. Rallus aquaticus, Linn.

Locally, Billcock, Skiddy-cock, Runner, Brookrunner, Velvet runner.

A fairly common resident, but from its shy and skulking habits not often seen, and therefore unrecorded. One was observed by the Rev. Charles Harrington, vicar of Aymestrey, which was flushed by a shooting party on the Yatton estate on I December, 1904. No doubt many others have occurred in the county of which no note has been made. It has occasionally the habit of feigning death when caught. Mr. Blake has in his collection three specimens obtained near Ross, one being picked up on a lawn in the town.

156. Moor-Hen. Gallinula chloropus (Linn).

Locally, Water Hen, Gallinule, Moat-hen, Marsh-hen.

Resident and abundant in the county. Dr. Williams of Kingsland remarks that this bird often selects odd nesting places. Some years ago he found a nest in a hawthorn bush near a pool, the nest being placed some 10 ft. from the ground. In August, 1889, he saw another nest placed in the middle of a large pool; the water was exceptionally low, being only some 9 in. in depth, and the bird had laid a foundation of sticks at the bottom, and built up the nest so that it stood at least a foot above the water's level. It was a very substantial structure, and quite different from the usual nests built by these birds.

157. Coot. Fulica atra, Linn.

Locally, Bald Coot.

A resident, and generally distributed throughout the county. It occurs on the ponds at the Mynde,

Berrington, Shobdon, and the Moor near Hay, at all of which places it breeds; also at Rhotherwas Pool and the moat, Whitbourne Court, and other places.

158. Little Bustard. Otis tetrax, Linn.

The specimen in the Hereford Museum came from the collection of the late Mr. Moss, who stated that it was shot in the neighbourhood of Dorstone, and this is the only record of its occurrence in the county. It was certainly shot many years ago and is badly stuffed, but is singularly light in colour.

159. Stone Curlew. Oedicnemus scolopax (S. G. Gmelin).

Locally, Thick-Knee, Great Plover, Norfolk Plover, Whistling Plover, Stone Plover.

A summer visitant, coming in April and leaving in October. One was killed at Lyde in 1854 and another at the same place on 27 November, 1894. This bird usually frequents wild uplands and plains, which latter are not to be found in the county.

160. Pratincole. Glareola pratincola, Linn.

A very rare visitor on migration during spring and autumn. The Hereford Museum specimen was shot at Fownhope in 1834. Some years since one of these birds was observed on the Wye, on the borders of Herefordshire, near Clyro, by the late Messrs. Baskerville, of Clyro Court, who watched it for some time.

Cream-coloured Courser. Cursorius gallicus (J. F. Gmelin).

The museum specimen of this rare bird was shot at Backney Marsh, near Ross, in 1854, and is the only record of its occurrence in the county.

162. Dotterel. Eudromias morinellus (Linn.).

Locally, Dottrel, Dotterel Plover, Foolish Dottrel.

This migrant, which arrives about the end of April and leaves in September, is a very rare visitor to Herefordshire. A flock were seen at Letton in 1878 by Mr. R. D. Chapman. One specimen was obtained about 1890, and afterwards seen and identified; it was shot on the Black Mountains on the borders of Herefordshire and Monmouthshire. On 22 September, 1906, a young bird of the year was picked up at the bottom of the tower of All Saints' Church, Hereford, and brought to Mr. Pilley, who at once identified it. It was alive when he received it, but was so much injured that he killed it.

163. Ringed Plover. Aegialitis hiaticola (Linn.). Locally, Stonehatch, Sand Lark, Ring Dottrel.

Of rare occurrence in the county; the Hereford Museum specimen was killed at Backney Marsh, Ross.

164. Golden Plover. Charadrius pluvialis, Linn. Locally, Yellow Plover, Whistling Plover.

Occurs generally in the winter. A few breed on the Black Mountains, where small flocks may often be seen in the winter. It has also been noted at Whitchurch, and a pair were seen in the Lugg Meadows, Lugwardine, in April, 1900. Ashdown mentions a local specimen (female) which was taken in June, 1890, with the characteristic dark breast (summer plumage) and was on view at the City Museum; it belonged to Mr. W. de Winton. He adds that this species breeds sparingly in the county, two or three specimens in

summer dress having passed through his hands, all killed within a narrow radius. A bird assuming winter plumage was taken at Dinmore early in September, 1893. On 17 June, 1897, Mr. de Winton saw on the highest point of the Black Mountains a pair of golden plover in full breeding plumage, he says: 'The cock bird in his splendid breeding plumage and his manœuvres and warnings to his mate were well worth seeing. The hen bird ran a considerable distance from the neighbourhood of the nest before rising, and I was much struck with the apparently much greater size of the cock bird which his rich black colouring and black breast gave him.' He did not search for the nest, seeing no advantage in unnecessarily disturbing the birds, but he was perfectly satisfied that a nest of eggs was there. This is the first time that it has actually been seen and recorded as breeding within the limits of the county, but two were observed by Mr. Enoch Drew on the Springfield estate, near Ross, in March, 1886.

165. Grey Plover. Squatarola helvetica (Linn.).

This bird, which is essentially a scabird, has been only observed a few times in the county. Two were shot on Lugg Meadows, near Hereford, in 1878; one at Bacton and two at Old Castle in 1880, and the two specimens in the Hereford Museum were shot at Sugwas in 1882.

166. Lapwing or Peewit. Vanellus vulgaris (Bechstein).
Locally, Tewit, Teufit, Green Plover, Bastard
Plover, Green Lapwing, Crested Lapwing.

A very common resident, even more abundant than formerly (Southall).

167. Turnstone. Strepsilas interpres (Linn.). Locally, Hebridal Sandpiper.

A rare visitor, scarcely ever being found far from the sea coast. The Hereford Museum specimen is labelled Backney Marsh, 1859, and is the only record for the county.

168. Oyster Catcher. Haematopus ostralegus, Linn. Locally, Pied Oyster-catcher, Shelder, Sea-pie, Olive.

An occasional visitor to the banks of the Wye and Lugg, but like the last-named bird seldom seen far from the sea coast. The three in the museum at Hereford were obtained as follows: one from Ross, one from Moccas, and the third was killed by Mr. R. D. Chapman on the Lugg Meadows, Hereford, in 1879.

169. Grey Phalarope. *Phalaropus fulicarius* (Linn.). *Locally*, Red Phalarope.

A winter visitant, occurring occasionally in the county. One was shot at Allensmore in 1847, another at Backney Bridge in 1881 (Blake), one on the Lugg Meadows, Hereford, in 1885, and another at Preston on Wye in 1886. Ashdown writes that in 1889 a boy brought him a perfect grey phalarope which he had caught under his cap in a meadow near Broomy Hill, Hereford, and this specimen was purchased by the City Museum committee for the museum. During the months of September and October, 1890, six specimens were sent him from Tenbury, Lugwardine, and the suburbs of Hereford.

170. Woodcock. Scolopax rusticula, Linn.

A fairly common winter visitor from October to March. It occasionally stops here all the year, and has nested at Ocle Coppice, Gatley, and the woods near Shobdon (Williams). It also nests annually on several estates around Ross (Blake).

171. Great Snipe. Gallinago major (J. F. Gmelin).

Locally, Double Snipe, Solitary Snipe.

A very rare winter visitor, arriving from August to October. It has been seen at Rotherwas in 1886 and 1887.

172. Common Snipe. Gallinago coelestis (Frenzel).

Locally, Whole Snipe, Snite, Heather bleater.

A resident in the county recruited by large numbers from abroad from October to March. It breeds in the Golden Valley near Kington, also near Haywood Forest, and on many of the hills as well as in Shobdon Marshes and Coombe (Williams).

173. Jack Snipe. Gallinago gallinula (Linn.).
Locally, Judcock, Half Snipe.

A common winter migrant from September to April, but not so numerous as the last-named bird.

174. Dunlin. Tringa alpina, Linn.

Locally, Purre, Dunlin Sandpiper, Churr, Stint, Oxbird, Sea Snipe, Least Snipe, Sea Lark.

This bird occurs occasionally, only in the winter, on the Lugg and Wye. On 5 November, 1895, Mr. Sanders sent Ashdown a good specimen for preservation shot at Eardisland, and doubtless swept inland by a storm. Mr. Blake says small companies occur in winter on the Wye, near Ross.

175. Knot. Tringa canutus, Linn.

A rare winter visitant, only three having been obtained in the county, viz. one at Dewsall in 1879, one met with at Llanwarne in 1883, and one found in a field at Newcourt in 1884.

176. Ruff Q Reeve. Machetes pugnax (Linn.).

Usually met with in winter, although it formerly bred in the marshy district of this county. A pair were killed at Colwall in September, 1890, in winter plumage, by Mr. Ballard, and one was taken at Garnstone 30 August, 1894, evidently a freshly arrived migrant; this bird was beautifully marked with bars of dark brown and fawn colour, but was altogether devoid of the singular collar worn by the male in summer, and would be assuming sombre plumage; it was placed in a case with another supplied by Mr. de Winton, and a reeve, the three forming a very interesting group, and are now at Garnstone Castle (Ashdown).

177. Common Sandpiper. Totanus hypoleucus (Linn.).
Locally, Summer Snipe, Willy Wicket, Sand Lark.

A summer migrant, visiting this county in some numbers in the spring and autumn; common on the various brooks and rivers, especially on the Wye, where it is abundant in April and May, after which it passes on to its secluded breeding places situated in the upper reaches of the river.

178. Green Sandpiper. Totanus ochropus (Linn.)

Another summer migrant, occurring very occasionally in the county, generally in the autumn. One was shot at Fawley, one at Great Brampton about thirty years ago, and another was shot by the late Mr. C. Hatton. A female was shot at Eaton Bishop in November, 1889, and one was seen there in November, 1898. Another occurred on the Lugg, near the aqueduct, in May, 1899. It also occurs on the Lugg and Arrow near Kingsland. Ashdown says that Mr. Harley, of Brampton Bryan, shot a female on 29 August, 1894, and on I August, 1895, a male was shot by Mr. I. Wyndham Smith near Ross. In November, 1889, he bought a pair shot at Lower Eaton, which are now in the city museum, and in 1893 a female was sent him killed at Holme Lacy in October by Mr. Oliverson. On 28 November, 1893, Mr. Wood, of Fownhope, secured an unusually large female measuring across the wings from -1 and from tip of bill to end of tail 9\frac{3}{4} in. This measuring across the wings from tip to tip 174 in., species visits the county but sparingly, and definite proofs of its nidification here is wanting; unlike other sandpipers, it breeds in the deserted nest of the rook, hawk, or magpie, in a tree.

179. Common Redshank. Totanus calidris (Linn.).

Locally, Sandpiper, Teuke, Pool Snipe, Sandcock, Redlegged Horseman, Red-legged Sandpiper.

A rare visitor. The specimen in the Hereford Museum was shot on the Wye at Ruckhall in 1830, one was killed at Monkland in 1879, and Mr. Oliver Power, of Hill Court, killed one on the Wye some years since.

180. Spotted Redshank. Totanus fuscus (Linn.)

Locally, Spotted Snipe, Dusky Sandpiper, Black-headed Snipe, Courand Snipe.

Rare. One has been reported to have been killed at Monkland in 1881 (Pulley), but its occurrence in the county is restricted to this one instance.

181. Greenshank. Totanus canescens (J. F. Gmelin). Locally, Cinerous Godwit, Green-legged Horseman

A very occasional visitor on spring and autumn migration. It has occurred at Castleton in 1879, Aymestrey in 1880, Caplar in 1880, and at Weir End, Ross, in 1886. One was shot in the county in August, 1905, and two seen (Blake).

182. Bartailed Godwit. Limosa lapponica (Linn.).

Locally, Common Godwit, Grey Godwit, Red Godwit, Godwit Snipe, Redbreasted Snipe.

A rare visitor. One was shot at Mordiford in 1839. The Hereford Museum specimen was shot at Carey Island in 1879. Another was shot in the county in August, 1905, two being seen (Pilley).

183. Black-tailed Godwit. Limosa belgica (J. F. Gmelin).

Locally, Godwit Snipe, Jadreka Snipe, Red Godwit, Yarwhelp, Yarwhip, Shrieker.

The only record of this extremely rare visitant, usually obtained on migration, is one shot on the Lugg in 1876 (Bull).

184. Common Curlew. Numenius arquata (Linn.).

Locally, Whaup.

Occurs in the county principally in the breeding season. It nests on the Black Mountains and in the neighbourhood of Kington, also at Whitchurch, Shobdon, Aymestrey, and Wapley Camp (Radnorshire). It has been killed at Michaelchurch, Kimbolton, Madley, and in other parts of the county and is greatly on the increase during the breeding season.

185. Whimbrel. Numenius phoeopus (Linn.).

Locally, Whimbrel Curlew, Curlew Jack, Curlew Knot, Half Curlew, Jack Curlew, Stone Curlew, Gang Whaup, May Bird.

A very rare visitor. One was shot at Holme Lacey in 1880, and the specimen in the Hereford Museum was shot on the Lugg in 1881.

186. Black Tern. *Hydrochelidon nigra* (Linn.). *Locally*, Blue Dar, Car Swallow.

A very rare spring visitor. A specimen was shot on the Mynde Pool in 1859, and a female was killed on the large pool close to Lord Powis's residence near Craven Arms in 1894, not far from the borders of the county. On 22 May, 1901, one made its appearance at Whitbourne Court. It was seen flying over the moat, occasionally settling upon the stump of a tree jutting out over the water from an island. It stayed all day until late in the evening, when it flew away in an easterly direction.

187. Sandwich Tern. Sterna cantiaca, G. F. Gmelin.

A specimen of this tern was picked up at Ross in 1886, probably an exhausted bird blown in by a storm.

188. Common Tern. Sterna fluviatilis, Naumann.

Locally, Sea Swallow, Tarney or Pictarney, Tarrock, Pirr, Gullteazer, &c.

An occasional visitor; has been observed in 1889 in the county (Horne); one was shot near Hereford in November, 1893, and another at Preston on Wye in 1896. Ashdown says that every winter two or three specimens, generally immature, reached him from various parts of the county. A pair were killed on the Wye near Ross a few years ago, and were shot within a few days of each other, and are now in the possession of Mr. Blake.

189. Arctic Tern. Sterna macrura, Naumann.

One of these wanderers from the sea was picked up dead on I June, 1903, at Stansbach in the parish of Staunton-on-Arrow. It was in perfect plumage, and had been seen two or three days previously flying about the neighbourhood. This is the only record of the occurrence of the bird in the county.

190. Little Tern. Sterna minuta, Linn.

Locally, Lesser Tern, Lesser Sea Swallow.

A rare visitor. One was shot at Marden in 1869 and another was killed by telegraph wires near Hereford in 1876.

191. Sooty Tern. Sterna fuliginosa, J. F. Gmelin.

The only record of the occurrence of this rare visitor in the county is one killed at Marston near Pembridge in 1885.

192. Black-headed Gull. Larus ridibundus, Linn.

Locally, Brown-headed Gull, Red-legged Gull, Red-legged Laughing Gull, Pewit Gull, Blackcap, Sea Crow, Hooded Mew.

Occasionally visits the county from the sea-shore, where it is abundant. It has been killed in the county in 1876 and 1889. On 19 July, 1894, a flock followed the plough track at Eaton Bishop near Hereford, when one was killed for identification. Its head was black, or rather brown, being in its summer plumage. Ashdown also adds, it is occasionally forwarded during the winter season for preservation.

193. Common Gull. Larus Canus, Linn.

Locally, Winter Mew, Sea Mew, Sea Mall, Maw Sea Gull, Sea Cob, Cob.

Occurs often in the county, but it is less common than either the last-named or the kittiwake. Ashdown says that five or six of this species have been killed in the county during 1890-2, and two were sent him from Ross in January, 1892.

194. Lesser Black-backed Gull. Larus fuscus, Linn. Locally, Yellow-legged Gull.

Occurs occasionally in the county. One was shot on the Lugg at Sutton in 1879; a pair visited the Wye between Rotherwas and Holme Lacey during the years 1886–8, and one was shot at Dinedor in 1892. Mr. de Winton says that in visiting the highest point of the Black Mountains on 17 June, 1897, he saw two adults and two last year's young on the ground. At this season the old birds should have been at their breeding-ground and the younger birds at the sea, and he did not know quite how to account for the presence of this species at that time of the year.

195. Great Black-backed Gull. Larus Marinus, Linn.

Rarely visits Herefordshire, but has been seen there on several occasions. Mr. de Winton, in the late summer of 1893, saw two very large gulls, presumably this species, at Graftonbury. They were flying in large circles and falling away with the wind.

196. Kittiwake. Rissa tridactyla (Linn.). Locally, Tarrock, Annet.

By far the most numerous of the gulls seen in Herefordshire. Ashdown says he has purchased local specimens in almost every stage of plumage. It occurred at Eardisley in 1866, at Vennwood in December, 1887, and several were picked up dead in the county in 1879.

197. Pomatorhine Skua. Stercorarius pomatorhinus (Temminck).

The Hereford Museum specimen was trapped at Foxley on 8 August, 1882. At the end of October, 1902, one in immature plumage was picked up in an exhausted state at Marston, and was in the possession of the late Mr. Lloyd of Kington.

198. Arctic or Richardson's Skua. Stercorarius crepidatus (J. F. Gmelin).

Locally, Arctic Gull, Black-toed Gull.

Has only been recorded three times in the county, one being shot at Staunton Park in Septem-

ber, 1869, and another at Street Court. An immature specimen was captured near Hereford and taken alive to Mr. J. B. Pilley on 28 September, 1900.

199. Puffin. Fratercula arctica (Linn).

Locally, Sea Parrot, Coulterneb, Tammy Norie.

A scarce visitor from the sea, occurring after a violent gale. The Hereford Museum specimen was killed with a whip on the road between Woolhope and Hereford in June, 1876. A young male was brought to Ashdown alive in November, 1893, by Mr. Flower of Aconbury, who says it was discovered on the highway half disabled by the storm. He found that it would readily eat bread, but owing to its injured condition no possibility existed of keeping it alive for any length of time. The eyes of this specimen were flat and dark-coloured and the legs and toes had a delicate pink tint, quite different from the adult bird with its curious grey eyes and orange-coloured feet (Ashdown). It should not be forgotten that in autumn this bird moults the horny-frontal sheath of its bill, and the bill is consequently different in winter.

200. Great Northern Diver. Colymbus glacialis, Linn.

Locally, Great Speckled Diver, Great Doucker, Immer, Immer Diver.

Of very rare occurrence. A female was shot on the Wye, near Ross, in 1867, and one was taken at Peterchurch in 1880. Two specimens are in the Hereford Museum, one having been found at Clifford and the other shot at Holme Lacy.

201. Black-throated Diver. Colymbus arcticus, Linn. Locally, Lumme, Northern Doucker, Speckled Loon.

The only county record of this bird is an example which was caught alive by some choir boys at Kinnersley in the winter of 1891. It was purchased by the Rev. F. Andrews, the rector, and was in his collection.

202. Red-throated Diver. Colymbus septentrionalis, Linn.

Locally, Rain Goose, Cobble, Spratborer, Spratoon, Speckled Diver.

Occasionally seen on the Wye, particularly in the neighbourhood of Ross. The three specimens in the Hereford Museum were taken as follows:—One in the winter of 1894–5, and the other two were shot on the Weir Cliff, Ross, in the winter of 1879–80.

203. Great Crested Grebe. Podicipes cristatus (Linn.). Locally, Cargoose, Loon, Greater Loon, Tippet Grebe, Gaunt, Mulroken.

An occasional visitor, as may be expected from its breeding freely in Llangorse Lake, Breconshire. The Hereford Museum specimen was shot near Ross in 1852. Two fine examples were shot at Shobdon in 1880, and a young bird was killed on the Wye at Wilton in December, 1881. One was sent by Mr. W. Blake to Ashdown, killed in the early part of 1893, presumably near Ross. In 1893 the same gentleman, writing from Ross, says that at the end of the previous March a male specimen was brought to him for

identification. It had almost completed its spring plumage, its crest being nearly developed and was obtained on the Wye near Backney Bridge. In March, 1900, a male was shot on the Wye near Hereford.

204. Red-necked Grebe. *Podicipes griseigena* (Boddaert).

A rare visitor. A specimen was shot on the Wye at Cubberley in October, 1881; another was shot at the Weir End, Ross, in January, 1889. Mr. Blake of Ross sent in a very good example shot near Ross on 7 February, 1895, in winter plumage, the rufous colouring of the neck being supplanted by a greyish tint. The bird is now in Mr. Blake's collection.

205. Slavonian or Horned Grebe. *Podicipes auritus* (Linn.).

Locally, Dusky Grebe.

A very rare visitor. The Hereford Museum specimen is labelled 'Hereford, 1849' and was no doubt obtained there (Bull). There are no particulars respecting it. On 14 February, 1895, Mr. Sanders of Street Court, Kingsland, shot a male bird there and sent it to Ashdown for preservation.

206. Black-necked or Eared Grebe. Podicipes nigricollis (C. L. Brehm).

A very rare visitor, and has twice occurred in the county. The Hereford Museum specimen was shot on the Wye near Stretton Sugwas in 1879. On 14 April, 1903, Mr. Frank James saw one on the Burcott Pool; he was well acquainted with the bird, and on the occasion in question he got his boys to drive it to within 20 yards of him for the purpose of identification.

207. Little Grebe. Podicipes fluviatilis (Tunstall).

Locally, Dabchick, Didapper, Small Ducker, Black Chin, Grebe.

A common resident, breeding in the rivers and ponds in the county. One was picked up dead by Mr. Sanders at Kingsland in February, 1895, that had been choked by a bullhead. The remarkable feature in this specimen was the summer plumage assumed so early in the year. It was set up for the Hereford Museum, Mr. Sanders having kindly presented it (Ashdown).

208. Storm Petrel. Procellaria pelagica, Linn.

Locally, Mother Carey's Chicken, Devil's Bird, Witches.

Has occurred in a few instances, one being shot at Shobdon in 1867, and another killed at Foy in 1877.

 Leach's Fork-tailed Petrel. Oceanodroma leucorrhoa (Vieillot).

Another little sea bird which has twice occurred in the county. The specimen in the Hereford Museum was picked up at Dewsall in the winter of 1880, and a male was picked up dead in the county in 1905. Another was shot on the Wye near the borders of the county in Breconshire, 15 October, 1877, by Colonel Wood's keeper. This bird, like the last named, is never seen inland, except after a violent gale, when it is usually picked up dead.

Manx Shearwater. Puffinus anglorum (Temminck).

Locally, Shearwater Petrel, Manx Puffin, Cuckle, Skidden, Crew.

Has occurred several times in the county after gales. One was taken at Peterstow and one at Woolhope. One was caught at Dewsall in September, 1882, and one at Yatton Court, Kingsland, in 1883. Another was picked up alive in 1887 in a field near Gayton Hall in the parish of Upton Bishop; it was taken to Mr. Elmes, who set it up. The Hereford Museum specimen, a female, was found in Whitecross Road, Hereford, in August, 1889. In September, 1891, one was picked up dead at Withington,

and another was caught near Hereford in September, 1904. From the above it will be noticed that three specimens were 'caught,' two were 'taken,' another was 'found,' and two were 'picked up,' showing conclusively that all these occurrences were exhausted, storm-blown specimens.

Fulmar. Fulmarus glacialis (Linn.).
 Locally, Fulmar Petrel, Northern Fulmar.

Has occurred once. The Hereford Museum specimen was caught alive at Pontrilas in October, 1889, by a labourer, who brought it to Ashdown. It was afterwards purchased for the museum, and is undoubtedly one of the most valuable specimens, taken locally, in the collection.

# MAMMALS

Herefordshire is a county which presents conditions favourable to the preservation of mammalian wild life. The development of industrial activities, while it adds to a district wealth and population, yet at the same time tends to rob the ground of nearly everything that is of interest to the student of nature. In Herefordshire no such industrial development has taken place and hence we find that the natural fauna of rural England for the most part survives. Much of the county consists of hilly ground, well wooded; and here as a rule the wild life is not interfered with except by the gamekeeper. Badgers find shelter here at the present time; and within the memory of persons now living the wild cat and the marten also were still found there, as well as the polecat, now nearly extinct.

Mr. R. M. Lingwood, writing in 1840, describes the polecat as being common, as well as the stoat.¹ Of the otter he says 'One or two generally frequent the river Lugg,' and of the hedgehog, 'not very general.' The polecat, destroyed whenever seen, has become scarce since that date. The writer's words might lead us to suppose that the otter and the hedgehog were more scarce at that date than at the present time, but the probability is that the former at any rate is now more carefully observed. With regard to the hedgehog it must be remembered that Mr. Lingwood in this paper describes a part only of the county, the neighbourhood namely of Hereford and of the Fownhope Valley. Probably the hedgehog was then, as it is now, more numerous in the north of the county. The evil repute of the animal in popular estimation leads to its being destroyed at sight; so that its numbers are likely to be fewer in the neighbourhood of a town.

The hare must be named as one of the animals which have diminished in numbers within recent years. The hares have been shot and the rabbits, always numerous, have taken their ground.

The aboriginal deer of Herefordshire are extinct and the various deer

parks have been stocked by animals imported from elsewhere.

Of the bats of the county there is as yet no exhaustive list. Judging by inference from the records of neighbouring and midland counties, we might expect to find the majority of British bats. The existence of the whiskered bat and of Natterer's bat may, at any rate, be assumed without question. The list given below is admittedly incomplete, and further information is required.

Herefordshire claims the first discovery by Mr. W. E. de Winton of the British yellow-necked wood mouse, regarding which further information is given below. He says: 'The interesting point about this to my mind is the fact that it is identical with the prevailing form found in Bohemia,

Silesia, Eastern Germany and Western Hungary.'

<sup>&</sup>lt;sup>1</sup> 'A Short Outline of the Fauna for part of Herefordshire,' Annals of Natural Hist. (1840). Mr. Lingwood was afterwards, in 1852, the first president of the Woolhope Club.

Another rodent, the black rat (Mus rattus) is extinct; this fact definitely stated by so experienced an observer as Mr. de Winton, as well as by all local naturalists, is of importance. There are other counties in which the black rat is absent, but perhaps none in which we can with more certainty predict the direction of its future re-appearance. Herefordshire is shut in by hills and all new rat immigrants will in certainty come up the banks of the rivers, always the highways of the rat kind.

I have much pleasure in acknowledging the very kind assistance I have received from many quarters, in the task of collecting information regarding the wild mammalia of Herefordshire. My thanks are especially due to Mr. W. E. de Winton, of Orielton, Pembroke; to Mr. H. Cecil Moore, Honorary Secretary of the Woolhope Naturalists' Field Club; and to other members of this club.

### CHEIROPTERA

1. Greater Horse-shoe Bat. Rhinolophus ferrumequinum, Schreber.

This, as well as the lesser horse-shoe bat, according to Mr. de Winton, is plentiful in Herefordshire.

2. Lesser Horse-shoe Bat. Rhinolophus hipposiderus,

Recorded by Mr. R. M. Lingwood as occurring over the kitchens at Sufton Court.

3. Long-eared Bat. Plecotus auritus, Linn.

Recorded by Mr. Lingwood. This species, according to Mr. J. G. Millais,3 is the easiest to tame. Mr. R. A. Swayne of Tarrington House near Stoke Edith has had experience in taming this and also bats of other species. Silk-worm moths which had laid their eggs were sometimes given to them for food. Mr. Swayne's sisters also tamed a bat; and so successfully that it would walk about the table and allow them to stroke it and hold it in their hands. It would come to them and drink milk out of a teaspoon, and was accustomed to fly round the room and catch flies for itself. This bat seems to have enjoyed a greater

degree of liberty than Mr. Millais' pets of whom he cautiously says 'It is advisable to allow them to fly.' That liberty was its undoing, for it flew into the fire and was burnt. This sad fact is noteworthy, suggesting a limitation of faculty in the sense organs of the bat's wing.

4. Great or White's Bat (Noctule). Pipistrellus noctula, Schreber.

Bell-Scotophilus noctule.

White-Vespertilio altivolans.

Recorded by Mr. Lingwood.

5. Pipistrelle. Pipistrellus pipistrellus, Schreber. Bell-Scotophilus pipistrellus.

Recorded by Mr. Lingwood; common. A specimen was caught on the wing in December, 1839, by Mr. Lingwood.

- 6. Daubenton's Bat. Myotis daubentoni, Leisler.
- 'I have a specimen taken at Hereford last year' (T. E. Kelsall; Zool. 1889, p. 308)

### INSECTIVORA

7. Hedgehog. Erinaceus europaeus, Linn.

The Rev. S. Cornish Watkins gives the following extract from the Staunton on Arrow Churchwardens' Accounts for 1723: 'Pd. for 7 Hedgehoggs, 1s. 2d.' He adds 'Hedgehogs are numerous at Kentchurch and a number are trapped by keepers every year in gins baited with the entrails of a rabbit. They are said to be confirmed egg-poachers. One that I kept when a boy would eat dead rats. She was a female that I found in an old quarry at Kentchurch with several young ones.' Mr. Walter H. Steward of Pontrilas says: On farms where I have the shooting, hedgehogs used

to be very plentiful. In the last few years we have not seen any; my keeper says that a very wet season kills them.' Mr. R. A. Swayne finds hedgehogs not especially numerous near Stoke Edith and thinks that gamekeepers destroy them because they are not only guilty of sucking eggs but also eat the newly hatched young of pheasants and partridges. Mr. Swayne recollects that tame hedgehogs kept in a walled garden by his father were successful in rearing young, and adds that they attacked and ate his tame snakes. The Herefordshire country people still believe that hedgehogs suck cows; and over the Worcestershire border, the Rev. J. B. Hewitt of Upper Sapey Rectory, reports that this statement was made quite recently concerning his own cow! Mr. J. B. Pilley, assistant secretary to the Woolhope Naturalists' Field Club,

<sup>&</sup>lt;sup>2</sup> Annals of Nat. Hist. 1840. Paper quoted above. See also a similar paper by the same author, Woolhope Trans. (iv).

<sup>8</sup> Mammals of Great Britain and Ireland (1904), i.

# **MAMMALS**

mentions that it is considered unlucky to see a hedgehog near a house and therefore they are destroyed.

Hedgehogs are stated to be most numerous in the northern part of the county.

#### 8. Mole. Talpa europaea, Linn.

Mr. J. B. Pilley has collected some very interesting statistics regarding the colour variations of the mole. Practically all the recorded variations occur within the county as will be seen by comparing his list with that given by Bell. Mr. Pilley finds that moles are very numerous in Herefordshire and show no visible decrease in number, although very many are trapped. A local furrier has received from this county alone, during the last four or five years, about 175,000 skins; some 40,000 of these were received during the year 1905. The number of variant skins he estimates at about one in every 5,000. The most common variations he finds to be the following: orange spots on the belly and less often on the back; light grey; grey with light drab spots. Black specimens also occur, and cream coloured ones; there were several orange coloured and one perfectly white. A mole, creamy white in colour, was caught in a trap at Cobnash, a small farm 21 miles from Leominster. Six or seven were also caught within a short time at Shobdon. The Rev. S. Cornish Watkins says: 'In the winter of 1901-2, two moles, cream coloured with orange markings on the back, were trapped in the same field at Huntingdon just above Kington. The skin of one is now in my possession. I saw the corpse of a white one, much decayed, hung up in a hedge with others at Huntingdon in October, 1898. Another was killed in the same farm in 1897. It is curious that all these should be from the same district, as I never saw another elsewhere in Herefordshire.' The variations of the mole are probably very local in occurrence and would repay study and careful comparison with local variations elsewhere.4 The conditions which govern the number of moles are probably extremely local. Mr. John Riley of Putley Court, Ledbury, records that the number trapped has kept fairly constant for some twenty-five years, being rather more than an average of one to the acre every year. On one grass field no moles were ever seen, and when ploughed up for fruit-growing in October, 1906, no wire-worms were found; possibly it did not provide enough food to attract the moles. There is in some places a prejudice in favour of the mole; not only because it clears the ground of insects, but because it is considered to drain wet soil by burrowing in it. On the other hand, Mr. R. A. Swayne of Stoke Edith, a very keen observer, says, 'Moles have been unusually numerous in this neighbourhood for a year or two, but the mole-catchers appear to have reduced them. They sell the skins at, I think, 2d. each. I have never heard of any variation in colour here.' The shape and direction of the tracks of the mole have formed the subject of a discussion by the Woolhope Club.5

#### 9. Common Shrew. Sorex araneus, Linn.

Although this animal is common, its local distribution appears to be somewhat uneven. In the parish of Bridstow Mrs. Cooper Key records that in

twenty-seven years she has only once or twice seen a

Mr. de Winton says, 'The most frequent variation is a pale fawn colour, in life or when fresh killed. This fawn coloured shrew is a very beautiful creature, and its feet are like orient pearls; but these lovely colours soon fade.' Regarding the vexed question of shrews found dead on gravel walks, generally towards autumn, an inquiry occurs in the Zoologist for 1879 (p. 124), and the editor, in reply, refers to the discussion of the matter in Bell's Quadrupeds (ed. 2, p. 147), and to the belief of country people that a shrew mouse dies if it crosses a path.6

The Rev. S. Cornish Watkins sends the following curious instance of the owl and shrew mouse living as neighbours, a suggestive fact in this connexion, for this owl was evidently not hungry enough to eat shrews. He writes: 'In the same tree with the nest of squirrels was a barn owl's nest, and at a height of about eight feet from the ground, in a small hole, a

nest of young shrews.'

#### 10. Pigmy Shrew. Sorex minutus, Pallas.

Bell-Sorex pygmaeus.

Mr. de Winton writes: 'These are very common, and easily trapped in banks. I have found their remains in owls' pellets very often, and that in districts where this shrew was said to be unknown.

#### 11. Water Shrew. Neomys fodiens, Pallas.

Bell-Crossopus fodiens.

Recorded by Mr. R. M. Lingwood as occurring in meadows by the River Lugg. The water shrew finds its typical home in Herefordshire streams. Mr. W. E. de Winton writes: 'Lying flat on a board placed across a stream, I have watched them feeding in shallow streams. I believe they search the bottom chiefly for water shrimps. I have taken two of these animals from the stomach of a heron.' Mr. H. A. Wadworth records that a water shrew was caught at Breinton Court about three miles west of Hereford, about 1 November, 1906, and was mounted for the Hereford Museum. The Rev. S. Cornish Watkins states that water shrews were common a few years ago in the square pool at Kentchurch. Mr. Donald Mathews, of Redditch, published in the Redditch Indicator for 15 May, 1905, the following interesting account of his observations on the water shrew at Blakemere in Herefordshire before the year 1867. 'Very few and far between are those who have seen a water shrew in its native home. . . . . When tired of play I would sit or lie down beside the water, still and quiet. Then would my little playmates come. You would see ever so little a waver in the grass and a little black object (small as the waver) run down the shallow bank right straight into the water, not diving, but running straight to the bottom of the shallow stream; then in a moment he was spangled with hundreds of pearls, being minute globules of air he had taken with him into the stream—at this time he was a little gem indeed. With his long snout he would turn over every little pebble at the bottom of the water in search of food, consisting of aquatic insects, and would remain under water for several minutes at a time; then he would rise to the surface like a cork and swim (so prettily)

<sup>&</sup>lt;sup>4</sup> See Zool. (1877), p. 225; (1878), pp. 22, 128. <sup>5</sup> Trans. (1869), pp. 128-36.

<sup>6</sup> See also Zool. (1879), p. 173.

a little distance, his coat apparently as dry as if he had been on land the whole time. Looking further along the gutter you would see another. Coming together they would both sink to the bottom without a ripple; they would play together at the bottom, and if you made the least movement they would scutter up the bank and be lost in the herbage. They were most difficult to catch, but I have taken several with the aid of a net in the water. They would sham death for an instant or two on being taken. . . . . I found a part of the bank much used by these little creatures, and traced a little hole just above the water line and many well-worn runs in the herbage near, with the stems of the grass bitten neatly off. I

watched this place patiently and found it was frequented by a pair of shrews, but they only entered rarely from the water. Searching about I found two other holes on the land close by; I watched these and saw the little fellows carrying dry grass and leaves into one of them. Some little time after I carefully dug a large turf away and there about four inches from the surface was a warm cosy little nest with five little shrews in it. They had their eyes closed, and were very tiny mites and looked very comical with their long noses.'

The water shrew is believed to have become less frequent during recent years. An angler lately informed Mr. Pilley that he rarely sees one.

### **CARNIVORA**

#### 12. Wild Cat. Felis catus, Linn.

Mr. R. A. Swayne considers survivals are little likely, because cats are the most easily trapped of any wild animals; he says there may be survivals of a half wild cat, interbred with escaped specimens of the domestic cat till it has become merged with it. Mr. Cooke, an elderly gamekeeper, living near Stoke Edith, remembers that when he was a boy, some sixty years ago, he trapped in that neighbourhood two distinctly pure wild cats, male and female. They were more or less striped, with tails short but very bushy, long in the legs and much larger than the domestic cat. skins were made into mats and worn out. He caught both at about the same time, either on the same day or within a day or two. Mr. E. C. Phillips states that the wild cat, though now extinct in Breconshire, has been killed within the past sixty years near Bronllys, about seven miles from the Herefordshire border.

#### 13. Fox. Vulpes vulpes, Linn.

Bell-Vulpes vulgaris.

The churchwardens' accounts of Staunton on Arrow in 1728 record 'Pd. for a ffox 1/' (Rev. S. Cornish Watkins). Foxes are numerous, and so bold that they sometimes visit the poultry yards within a mile of the centre of the city of Hereford. There are four packs of foxhounds within the county. Cubs are sometimes imported by the less wooded parts of the county from those parts of it where there is more cover (J. B. Pilley). Mr. E. C. Phillips says that the foxes of the Black Mountains are invariably greyer in colour.

# 14. Pine Marten. Mustela martes, Linn. Bell—Martes abietum.

There are two specimens in the museum at Hereford, one labelled 'Stanage Park,' the other described as from near Ross (J. B. Pilley). Mr. Walter H. Steward, of Pontrilas, mentions that one was caught by the Pontrilas gamekeeper some years ago. Another was seen a few months after crossing the Dore stream at Pontrilas on a log. Mr. E. C. Phillips states that the pine marten still exists in Breconshire, and was killed a few miles from the Herefordshire border some twenty years ago.

The Zoologist for 1886, pp. 240, 241, gives a list of the martens of Herefordshire by Mr. F. Attwood Mathews, of Pontrilas Court, which may be sum-

marized as follows: (a) Dark brown specimen with bronze-coloured throat, caught by keeper Edward Rogers in a vermin trap in a covert called Paradise Brake, at Pontrilas (referred to above); (b) Black specimen with white throat caught by keeper Thomas Howard in Lowerhouse Wood in the parish of St. Margaret's, twenty-five years ago (viz. from 1886); (c) Darker one, killed in orchard of White House, Hereford, thirty-five years ago (viz. from 1886); (d) yellow-throated specimen killed at Urishay Castle long before; (e) in 1860 three martens were killed at Whitfield in St. Devereux. None have been seen there since. The writer adds, 'The Rev. G. M. Watkins informs me that Whitlock, the keeper at Kentchurch Court, says he had not seen a "marten cat" for twenty years; not since 1866, when one was trapped at Kentchurch, just by the little brook that runs into the River Monnow. His father forty years ago used to kill four or five every year near Monmouth, in a large wood called "Whitehill." The last I have heard of was seen just two years ago. In the spring of 1884 Mr. Walter Steward, R.N., was wading in the river Dore when he saw a marten (exactly like the one we sent to the museum, dark brown with yellow throat) crossing the stream by means of a tree which had fallen across and carrying a rat in its mouth.'

# 15. Polecat. Putorius putorius, Linn.

Bell - Mustela putorius.

Locally, Fummart, Fitch, Fitchuke, Fitchet.

Recorded as common by Mr. Lingwood in 1840. Mr. Cooke, the gamekeeper who trapped the wild cats, states that about sixty years ago as many as five or six were trapped in a day on Stoke Edith estate; their skins used to fetch 2s. 6d. each (R. A. Swayne). Mr. Pilley writes, 'The last one that I can hear of was killed about eight years ago near Lugwardine, four miles from Hereford. It is described by a local taxidermist, who saw the remains of it, as being about three quarters of the adult size. There are seven specimens in the local museum, probably all obtained in the county. There is little variation in colour, but two are rather lighter than the others.' Rev. S. Cornish Watkins remembers a polecat being trapped at Kentchurch about seventeen years ago, but has no exact record.

Mr. E. C. Phillips refers to the occurrence of the polecat within recent years in Breconshire, and thinks

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that it probably still survives on the Black Mountains of Herefordshire, an opinion which is shared by other correspondents and borne out by records of its occurrence in neighbouring counties.

The name Fitchet remains in common use as applied to the dark-coloured ferrets, as distinct from the white ones.

#### 16. Stoat. Putorius ermineus, Linn.

Bell-Mustela erminea.

Common all over the county. According to Mr. Swayne there was a great increase in its numbers during the last season, when his keeper at Burghill killed about three times as many as usual.

The whitening of the stoat in winter has been well observed in Herefordshire. Mr. Lingwood writing in 1840 says: 'I have a specimen, shot in February of this year, quite white except the back of the head and the tip of the tail.' Again in 1860 he records the finding of a stoat in white winter garb at Mordiford in February, 1840, and of another in 1855 at Llanwarne.7 Mr. Pilley reports that there are several ermine-like stoats and others partly white and partly normal in the Woolhope Museum, to which attention was directed by Mr. H. Cecil Moore at the annual meeting of the Woolhope Club in 1906. He has also seen a number of similar skins. The Rev. S. Cornish Watkins writes: 'I have a record of seeing a fine white stoat, white all except the tip of the tail, at Kentchurch, on 1 January, 1893. This was after more than a week of very severe cold.' Mr. E. W. Du Buisson states that in February, 1904, he saw a white stoat running along a hedgerow between Aylstone Hill and Lugg Bridge. The Rev. J. B. Hewitt writes: 'Not infrequently white in winter; I have seen four or five during the last few years.' Mr. Walter H. Steward of Pontrilas has often seen partially-white stoats, and some years ago shot, on the Vroe Farm between Rowlstone and Llancillo, an almost pure white specimen.

#### 17. Weasel. Putorius nivalis, Linn.

Bell-Mustela vulgaris.

This is common everywhere in Herefordshire, and is named as especially numerous during the year 1906. White ones are reported by Mr. Pilley. The Rev. S. Cornish Watkins writes: 'On 29 August, 1904, I was driving in Staunton on Arrow, and noticed a female weasel with several young by the roadside. The young dived into the grass, but the old weasel stood with her head and neck above the grass at the roadside chattering at me. I got down and touched her with the handle of the whip and turned her over, but she only bit it and stood on the defensive again, chattering vigorously. She tried to run up the whip to attack me, and made no attempt to escape. I never saw such an example of courage in a small creature.' We should not have to deplore the rapid extinction of our native fauna, if other naturalists would copy the example of Mr. Watkins, who adds: 'Needless' to say, I did not do her or the young any damage.' Mr. E. C. Phillips says it is a valuable aid to the farmer from its skill in catching rats. Mr. Donald Mathews remarks on the frequent occurrence of the weasel in mole traps in his experience.

7 Woolhope Club, Trans. iv (1863).

18. Badger. Meles meles, Linn. Bell-Meles taxus.

The following account of the badger in Herefordshire is given by Mr. R. A. Swayne: 'The number of badgers in the county has always been very large, and they sometimes amount to a pest. This results from the nature of the ground. The many wooded hills afford cover to the animals, and the soil, consisting of sandy gravel and pebbles, is easy for them to burrow in. They destroy eggs and young game and even sitting hens. On a farm situated on the side of Badnage Hill they used to turn over heavy hen coops at night to get at the hens and chickens. The farmer was able to convict the badgers, not the foxes, of this deed, for he traced their pads. I have heard of attempts to tame the animal, but it usually escapes; so did a fine specimen which I sent to a small zoological garden at Sutton Coldfield near Birmingham. Just as the box was being carried into the garden the badger escaped and was not recaptured.'

Regarding variations of the badger, a red or rusty rufous-coloured specimen has been found occasionally in Herefordshire, but very rarely. Mr. Pilley writes: Darker variations occur, nearly black. The animal is sparingly distributed, except in woods. were recently dug out at Breinton, some three miles from Hereford; they were accused of destroying young foxes. Tame badgers are kept by Mr. T. C. Vigo of Eardisley, who obtains the young, rears them and gives them to his friends.' A tame badger has also been heard of at Leintwardine, and others at Leominster, Sellack, and Aston Ingham. Of the two Breinton badgers named above, one was weighed by Mr. Lewis, and was found to weigh 43 lb. Its burrow was 9 ft. deep. Another is recorded as having been killed in Haywood Forest in 1905. Badgers are said to be especially numerous at Credenhill, and Mr. H. Cecil Moore states that they are much too common on the Hampton Court estate near Leominster.

#### 19. Otter. Lutra lutra, Linn.

Bell-Lutra vulgaris.

According to Mr. Lingwood, one or two otters were to be seen in the River Lugg in 1840. Mr. R. A. Swayne of Tarrington House, who has especially studied the habits of the otter, gives the following account of its occurrence in Herefordshire: 'The otter is comparatively common all over the county, probably much more common than is supposed. Otters travel so much by water that they leave very few pads by which to trace them. They do, however, travel many miles at night, and they often visit well-stocked fish-pools, and if not disturbed will remain till they have eaten the largest fish. One visited a large pool on our property at Burghill, and lived there for some time, till he had cleared the pool of all the large fish, tench and eels. I had often seen large tench of many pounds weight rolling and splashing about with their backs showing out of the water, and the pool was well known in the village for the fine eels in it; but when I had the pool drained, taking care to keep the outlet well netted, we failed to find a fish in the pool, either eel or tench, that would scale 8 oz. I had previously found the remains of a large eel, probably 2 lb. in weight, in a small spinney adjoining; and the farmer told me that he had frequently noticed the lair of some wild animal in the rough grass. Now

this pool lies at least six or seven miles from the River Wye, and at least five miles from the Lugg, and there is no brook in the valley, only springs and wet ditches with no fish in them. So this otter must have travelled some distance by land. I know of a similar case near Malvern Hill, where the farmer actually saw an otter at the side of the pool during hard weather in winter, but this pool was within a mile of a good trout stream.'

Mr. Pilley writes: 'The otter is not uncommon on the Wye and Lugg, especially the latter, and also occurs in the smaller streams. A policeman on duty crossing the bridge over the River Wye in Hereford at about one a.m. one moonlight morning saw two feeding, and watched them for a short time.'

couple of otters were observed by Mr. Edward Pilley, in the summer of 1906, on the brink of the river at the bottom of the Castle Green, Hereford, a muchfrequented place. Mr. H. Cecil Moore records that in October, 1907, a family of six otters were seen together on more than one occasion near the Wye Bridge, Hereford. Again, on 22 October, 1907, an otter was seen disporting itself in the Wye opposite the 'Saracen's Head' at the southern end of the Wye Bridge.

This species has been observed in many other localities besides those named above. I am informed by the pupils of Mr. J. Lingham Lees, Clyde House School, Hereford, that a tame otter has been kept at

Urishay Castle.

### RODENTIA

20. Squirrel. Sciurus leucourus, Kerr. Bell-Sciurus vulgaris.

Found in all large woods through the county, and considered to do much damage. The Rev. J. B. Hewitt says they are very mischievous in young larch and fir plantations. At Putley Court, Ledbury, they are shot on account of the nut plantations. The Rev. S. Cornish Watkins has a record that a nest of young squirrels was found in a hollow oak tree at Kentchurch. In this same tree were an owl's nest and Mr. R. A. Swayne remarks that a shrew's nest. the squirrel's nest is very often built in an oak tree. Mr. Watkins continues: 'The earliest date I have for young squirrels is 30 March, 1893, when I found a nest containing two young ones, about three days old, in a holly bush at Kentchurch. This is, I think, abnormally early.'

Mr. Pilley remarks that in winter squirrels are seen that have turned grey for the season, and the Rev. S. Cornish Watkins shot one almost the colour of an ordinary wild rabbit on 6 September, 1902. He says 'the tail was yellowish brown and dark grey brown along the centre, and it was rather a small specimen.' The skin is in his possession.

21. Dormouse. Muscardinus avellanarius, Linn. Bell-Myoxus avellarius. Locally, Seven-Sleeper.8

Mr. R. A. Swayne writes: 'Often found by woodmen in cutting down coppice hibernating in a stump of ash or oak. 'At Colwall this year, in my brother's garden,' says the Rev J. B. Hewitt, 'they took the nuts from the trees like squirrels.' The Rev. S. Cornish Watkins mentions that they are fairly common at Kentchurch, and occur sparingly at Staunton on

22. Brown Rat. Mus decumanus, Pallas. Abundant and bold, here as everywhere.

Black Rat. Mus rattus, Linn.

This is extinct in Herefordshire. In the neigh-

\*A dormouse is locally called 'A Seven-Sleeper,' the name being a curious survival of the old legend about 'The Seven Sleepers of Ephesus.' The word dormouse, of course, has a kindred meaning (Fr. Dormeuse, the sleeper). Mr. E. C. Phillips remarks that in the adjoining county of Brecon there is a Welsh saying, 'As fat as a dormouse.'

bouring county of Brecon Mr. E. C. Phillips reports that in forty years' experience he has seen one only, and that a dead one found at Llansantsfread. I find no statement of its occurrence in the precincts of Hereford Cathedral, although its occurrence at Bristol Cathedral is suggestive in view of its possible survival from earlier times. Mr. H. Bolton, Curator of the Bristol Museum, says that one of the three specimens of Mus rattus there is labelled 'Bristol Cathedral.' This may have been a local survival; or, on the other hand. it may have had an immigrant origin from the city docks. The successive immigrations of rats into England, where they are not indigenous, constitute an obscure subject. During recent years there has apparently been a revival, so to speak, of the black rat (M. rattus), formerly supposed to have been completely exterminated in England by the brown rat (M. decumanus). How far this revival is due to the multiplication of a few black rats surviving in out-ofthe-way places, and how far it is due to their recent immigration from abroad, is uncertain. The fact that they exist chiefly in maritime places does not entirely exclude the former possibility, for the cliffs and banks of the coast-line afford a secure home for rats, and a few of the former inhabitants may have survived there. Yet when the black rat is observed in seaport towns, the presumption is in favour of an immigrant origin. It is probable that this re-assertion of the black rat is an indication in some degree of degeneracy on the part of the fiercer brown rat (M. decumanus). Overpopulation would account for this. So also would its underground habits, for M. decumanus is more especially subterranean in its ways than M. rattus; and while this fact has helped to establish the supremacy of the species in the past, it may be a possible cause of its decadence in the future. Moreover, an insular race tends to weaken unless continually crossed; so that in England the immigrant rodent will always tend to supplant the native. This, in fact, is the secret of all successive waves of rodent immigration.

The appearance of M. rattus in Herefordshire, working its way in from the coast, is therefore only a question of time. In Worcestershire 9 it has already occurred; but here it is uncertain whether M. rattus was completely extinct before the immigrants came.]

9 V.C.H. Worc. i, 176.

# **MAMMALS**

### 23. House Mouse. Mus musculus, Linn.

In 1863 or 1864, near Blakemere, where a large wheat rick was being threshed, there were found in it seven or eight half-grown mice, some nearly all white, and all more nearly white than mouse-colour. (Donald Mathews). These may have been the offspring of an escaped pet white mouse, crossed with the grey one.

24. Wood Mouse or Long-tailed Field Mouse. Mus sylvaticus, Linn.

Bellamy and Barrett-Hamilton.—Mus sylvaticus intermedius.

Mr. Donald Mathews says, 'Most often seen in the heap of swedes stocked in fields to be eaten off by sheep. They used to be very numerous in sandy fields between Blakemere high road and the Holywell.'

For information regarding the interbreeding of M. sylvaticus with other mice, and the share it has taken in the production of fancy mice, see a paper by Mr. W. Bateson, M.A., F.Z.S., on the 'Present State of Knowledge of Colour Heredity in Mice and Rats'; Proc. Zool. Soc. (1903), 71. The facts discussed in this paper are of interest in reference to the position of individuals intermediate between M. sylvaticus intermedius and M. sylvaticus wintoni. Such have been observed in Sussex.<sup>10</sup>

### 25. British Yellow-necked Wood Mouse,11

Barrett-Hamilton .- Mus sylvaticus wintoni.

Capt. Barrett-Hamilton assigns to this mouse the name Mus sylvaticus wintoni, in honour of its discoverer and the English name British yellow-necked mouse in recognition of the fact that it differs from the yellownecked mouse Mus flavicollis of Melchior. It is, says Mr. de Winton, slightly less brightly coloured than the Danish mouse. Under the heading Mus sylvaticus wintoni, sub-sp. nov., Capt. Barrett-Hamilton says: 12—4 For the original description of this fine mouse we are indebted to Mr. W. E. de Winton, who discovered it at Graftonbury, Herefordshire. In his anxiety to avoid the rash institution of a new name, he was led to identify it with Melchior's Mus flavicollis. Since, however, a series of Long-tailed Field-mice, procured by Mr. Oldfield Thomas at Hilleröo, Zealand, Denmark—a locality almost topotypical of Melchior's Mouse—proved to be different from the present form. . . Mr. de Winton's discovery needs a new name, and I now take the opportunity of connecting it with its discoverer, to whose excellent field work amongst British Mammals we owe our knowledge not only of this, but of the Hebridean subspecies.'

Mr. de Winton's paper 'On a Neglected Species of British Field Mouse,' appeared in the Zoologist for

10 V.C.H. Sussex, i, 304.

11 Both this mouse and the ordinary long-tailed field mouse are beautifully figured in J. G. Millais' Mammals of Great Britain and Ireland, 1905, ii, opposite p. 184. For that Capt. Barrett-Hamilton prefers the English name British woodmouse, in recognition of the fact that the Mus sylvaticus to which Linnaeus gave that name is not identical in type with the form found in the British Isles; while in assigning to it the name Mus sylvaticus intermedius he follows C. J. Bellamy (Nat. Hist. of South

Devon, 195 and 329-30, with woodcut [date 1839]).

12 Proc. Zool. Soc. 1900, p. 456: 'On the Geographical and Individual Variation in Mus sylvaticus and its Allies,' by Capt. G. E. H. Barrett-Hamilton, F.L.S.

1894 (p. 441). He says: 'The richer colouring of the upper parts . . . and the pureness of the white on the under side, with the very distinct line of demarcation, gives this mouse a peculiarly striking appearance; it is almost as beautiful as a squirrel. Its large ears and wide open prominent eyes, its long tail and hind feet are fully as much developed in proportion to its size as in Mus sylvaticus, consequently the measurements are greater. . . The bright fawncoloured band across the chest distinguishes this mouse at all ages and in all seasons, though in the plumbouscoloured young naturally the colour is not so bright; still the more or less chestnut-tinged dark band is quite noticeable in the smallest mouse that is ever likely to be caught in a trap. . . The distribution of this mouse seems to be very local, and the localities in which it occurs are widely separated. . . At first I was inclined to describe this mouse as peculiar to Herefordshire, it being particularly abundant around Graftonbury, in this county, and also at Bishopstone in the same county, where in 1885 three specimens, now in the National Collection, were obtained by Mr. H. N. Ridley.

'Among two or three hundred skins of Wood Mice, mostly in the Collection now being formed by the efforts of Mr. Oldfield Thomas from all parts of the British Isles and Europe, not one of this species occurred, until about a month ago (i.e. in 1894) one appeared among some skins sent from Oundle by Lord Lilford.'13

The discovery of this mouse aroused a great deal of interest, and search was made for it elsewhere. It has now been described from Northamptonshire, Sussex, Suffolk, and Northumberland, and also from Surrey.<sup>14</sup>

Mr. R. Drane, President of the Cardiff Natural History Society for the year 1897, records the capture of the British yellow-necked wood mouse in that year near Goodrich Castle. Being at Goodrich in August for one night he set four traps, and in the morning he was fortunate in finding a specimen of this mouse in two of them.

#### 26. Harvest Mouse. Mus minutus, Pallas.

This appears to be still fairly common in some localities; but owing to its small size it is not noticed except by keen observers.

Mrs. Gertrude Ley, of Sellack Vicarage, Ross-on-Wye, remembers the finding of a nest in her father's garden at Beechwood some years ago. It was in the upper part of a thistle, or some plant about that height. Near the same place, Beechwood, in the parish of Hope Mansel, two ladies found a harvest mouse in its nest on 22 April, 1907. The nest was on the ground. Another nest was found by the Rev. A. Ley on 17 April, 1907, in a gorse bush at Alt Wint, in the parish of Little Dewchurch.

Mrs. Cooper-Key, of Wilton House, Bridstow, Ross-on-Wye, remembers finding a nest in 1882 or 1883, lying on the turf close to her house. It had evidently been pulled out of some adjacent shrub by a cat. It was composed of grass and was about the size of a cricket-ball. At first sight it appeared to be without an opening, for the grass was drawn tightly together over the entrance, and could be opened out without disturbing the rest of the fabric. It con-

 <sup>18</sup> Zool. (1894), p. 441.
 14 Ibid. (1903), pp. 266, 311; (1904), p. 245; (1906), p. 172;
 V.C.H. Suss. i, 304.

tained three tiny mice, blind, hairless, and of a dull blue colour; one was still alive and uninjured. On inquiry it was found that the village boys were acquainted with the nest of the harvest mouse; but a reward offered for a nest in situ was not claimed. The same lady records the finding of a nest in the neighbouring county of Gloucester, on the path leading to Symonds' Yat. In this nest two or three common fowls' feathers and a dead leaf or two were woven in among the grass, but not as lining. Mr. John Riley, of Putley Court, near Ledbury, describes the harvest mouse in Herefordshire as occurring rarely.

# 27. Water Vole. Microtus amphibius, Linn. Bell.—Arvicola amphibius.

Common in all the rivers and larger brooks. 'A very harmless vegetable-feeding animal, but sometimes does harm by eating through and destroying the roots of shrubs. At Mathon I had some good Portugal laurels destroyed in this way. It seemed to have been done in one night, for the tree fell over before its leaves had time to wither. The water vole is very much afraid of the ordinary brown rat.'—(R. A. Swayne.)

# 28. Common Field Vole. Microtus agrestis, Linn. Bell.—Arvicola agrestis.

Mr. Lingwood, writing in 1840, records this species as very numerous. In his later paper, dated 1860, he mentions that this species was exceedingly numerous in the summer of 1839, more than 200 being caught in making hay on 25 acres. At Ledbury at the present date they are a plague at times. They destroyed several newly-planted oak trees in the summer of 1906, eating the bark at the ground line. Mrs. Ley records the occurrence of this little creature, recognized by its short tail, at Beechwood, in the garden of her father, Mr. Thomas Gee.

# Bank Vole. Evotomys glareolus, Schreber. Bell.—Arvicola glareolus.

I have not received any recent records of this, but doubtless it occurs. Mr. Lingwood says (1840) under

the heading 'Bank Campagnol,' 'I am unable to insert this species for certainty, as only one specimen has come under my observation, and that in a damaged state.' In his later paper, dated 1860, he says, 'Two specimens only have come into my hands.'

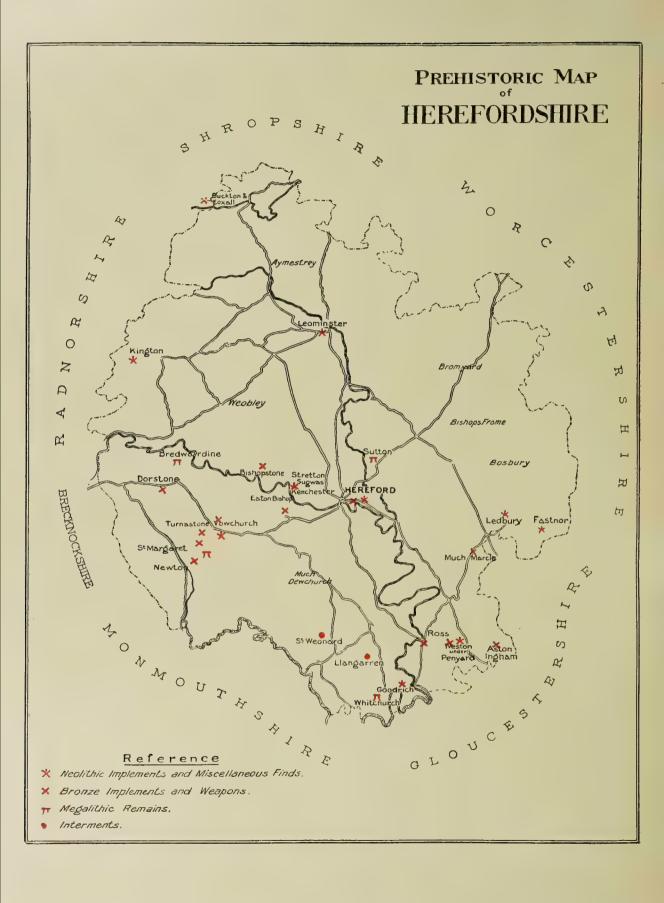
# 30. Hare. Lepus europaeus, Pallas. Bell—Lepus timidus.

Much more rare than formerly. It is now confined to a few of the larger estates.—(J. B. Pilley). Near the Rivers Wye and Lugg they shift their quarters in very wet seasons from the low-lying land to the adjacent hills. I have seen instances of their swimming powers when pressed by the pursuit of dogs (R. A. Swayne). The Rev. S. Cornish Watkins writes: 'Hares used to be very numerous within living memory at Staunton on Arrow, but have now been completely killed down and are practically extinct there, and at Kentchurch.'

### 31. Rabbit. Lepus cuniculus, Linn.

Great complaints were formerly made of the damage done by rabbits, and there is a common saying that 'four rabbits eat as much as one sheep.' But since the passing of the Ground Game Act the rabbit has become far more numerous, and it is said that farmers who used to complain of the damage done by rabbits to their crops now find it worth their while to breed them. Mr. Pilley says it appears to be more common than formerly, and Mr. Swayne expresses a similar opinion.

Variations in colour are of frequent occurrence. Mr. Swayne thinks that these, which are often seen, are due to the accidental escape or the intentional turning out of tame rabbits, especially the 'silver grey,' which produce black when crossed with the wild; he has frequently seen a white one with black ears. Last year he got a fawn-coloured one. It is interesting to compare Mr. Lingwood's record in 1840. 'A black variety is not uncommon, and occasionally a yellow variety is seen,' i.e. fawn. These variations seem to be local in occurrence, and whatever their origin would repay further study.



# EARLY MAN

HE present article on Early Man in Herefordshire covers only those periods which are antecedent to the occupation of Britain by the Romans. In attempting to reconstruct the outlines of this remote age, no assistance must be expected from inscriptions or written documents. The whole period is essentially prehistoric, and the only light which can be expected is derived from the antiquities themselves, the conditions under which they are found, and a comparison of them with the prehistoric remains of other districts. Implements of flint or stone and bronze and iron, sepulchral structures and deposits, and traces of dwellings and encampments, are the main sources to which we must turn for the elucidation of these early times.

In certain parts of England the Palaeolithic Age is represented by implements, but in Herefordshire, as far as recorded discoveries show, there are no certain traces of man's presence before the Neolithic Age.

#### THE NEOLITHIC AGE

The age or period known as the Neolithic lies entirely within the premetallic part of the prehistoric past. Separated from the earlier or Palaeolithic Age by something more perhaps than a mere interval of time, and from the age of bronze by a great advance in culture, it forms a most important phase in the story of human progress and civilization.

The physical forces which made Britain an island, severing it from the continent of Europe, were in operation between the Palaeolithic and Neolithic Periods, and, whatever may have been the case in other parts of the world, it can hardly be doubted that there was at that time an absolute break of continuity of human life in Britain. The Neolithic Age is of special interest to Englishmen, therefore, because it represents what may be regarded in a sense as the earliest chapter in the history of the people who now inhabit this island.

Considering the great antiquity of the Neolithic Age (there are no precise data by which this antiquity can be measured in years), it is remarkable how much is known of the distribution, occupations, dwellings, arts and burial customs of the Neolithic people. To mention only a few points, it may be remarked that man made his tools of flint, stone, and numerous other materials, grinding as well as chipping those of stone in order to obtain an

even, keen cutting edge; he made a rough kind of pottery; he tilled the soil; he bred cattle and sheep, and threw up extensive earthwork inclosures for their defence; he wove a species of cloth, was expert in hunting and fishing, constructed for the burial of his dead structures which involved great skill and perseverance, and made provision for the requirements of the dead which prove that he had a firm belief in a future state of existence after death. The probability is that our inability to recognize the full standard of Neolithic culture is largely due to the fact that many traces of man's handiwork of such a venerable antiquity must necessarily have perished by the hand of time.

The remains of Neolithic man in Herefordshire can hardly be described as of great importance. They do not, indeed, add much, if anything, to the sum of the knowledge already obtained from remains in other parts of England, but they are distinctly of value inasmuch as they help to show something of the distribution of Neolithic people in an important district of the kingdom.

An interesting group of Neolithic implements of flint, both chipped and ground, has been discovered by Mr. J. E. Ballard in the parish of Ledbury. These implements were obtained at Frith Farm about a mile and a half to the north-east of the town of Ledbury, and they were found to occur mainly over a space about four miles in diameter. Many hundreds of flint chips and flakes were scattered about indiscriminately on the ground, and not arranged in groups as is the case in some districts, especially on the sites of Neolithic dwellings. Whether a prolonged course of agricultural treatment of the soil has had the effect of scattering and disturbing the flints is not quite certain, but it is extremely probable.

The most important pieces are two fragments of tough, buff-coloured flint with segments of a highly-ground surface. Both seem to have belonged to one implement, probably a large celt or axe-head, and when this was damaged so as to be no longer of use for its original purpose, the fragments of flint were used up for flakes. All the surfaces of the fractures are apparently ancient. Another distinctly interesting specimen is a neatly-chipped flint arrow-head, of leaf-shape, the point of which has unfortunately been fractured somewhat in recent times, perhaps by contact with the plough. When perfect its length was about an inch and a half.

Mr. Ballard has obligingly given the present writer an opportunity to examine a selection of the Ledbury flint implements, including:—

- 1. A few cores of various kinds of flint, black, grey and brown, some only 1 in. long, from which flakes of slightly more than half an inch have been struck;
  - 2. Scrapers 3 in. to 1 in. in diameter; and

3. Several good straight flakes about one and one-eighth of an inch long, triangular in section with prominent ridge down the back, evidently made for a special purpose, also several well-made flakes 2 in. long.

It is clear that these fragments of flint were all specially selected for the suitability of their material and brought to this district by Neolithic man or his immediate successors. The presence of cores and waste chips in some numbers is important evidence, pointing, as it unquestionably does, to the local manufacture of implements.





ARTHUR'S STONE, DORSTONE

# EARLY MAN

Apart from the Ledbury implements there appear to be none recorded from Herefordshire which may not be considered as characteristic of quite a late period in the Neolithic Age. These comprise:—

1. A chipped celt of white stone afterwards reduced to smoothness by grinding, found in the River Wye at a



Oldcastle, near Hereford  $(\frac{2}{3})$ 

point of which no record appears to have been preserved, but as the celt is in Hereford Museum it may be presumed that it was procured in or near that city;

- 2. A stone hammer found at Kington;
- 3. Two flint arrow-heads with somewhat imperfectly developed barbs and stems, found at Oldcastle, near Hereford; and



Vowchurch (5

4. A well-shaped stemmed and barbed arrow-head formed of flint, found at Vowchurch.

#### MEGALITHIC REMAINS

The remains of megalithic structures of the Neolithic Period in Herefordshire are not so important numerically as one might expect, yet one, called Arthur's Stone, is a somewhat damaged, but in many respects remarkable, cromlech; other megalithic remains, probably fallen cromlechs, are recorded at Sutton St. Nicholas, St. Margaret's Park, and (possibly) Whitchurch. 'The Queen Stone,' shortly to be described, is probably a naturally-shaped and naturally-placed stone, round which certain superstitious ideas have grown up.

Arthur's Stone.—This is an interesting cromlech at Dorstone,¹ situated on the summit of Bredwardine Hill, an eminence which has sometimes been known as 'Arthur's Stone Mountain.' Originally this monument consisted of a large, flat, oblong stone, the eastern point being narrow and the breadth increasing towards the west. The capstone is now broken and much decayed, but it has the appearance of having been only one large stone when it was reared into its original position. If so, it must have been a stone of remarkable size. Its length was 19 ft., breadth at the widest part, 12 ft.; and breadth at the eastern end, 3 ft. 4 in. The capstone is broken about the middle, where the breadth is 10 ft., and part has fallen lower than the other. Originally there were ten upright stones; five of these have also fallen down, and five remain in a more or less perpendicular position; one or two of them, however, have a slight tendency to lean inwards.

Notwithstanding the various explanations as to the purpose of this group of stones which some writers have offered, there seems no sufficient reason to doubt that it was erected for sepulchral uses, and in all probability belongs to the Neolithic Age. The stones are of the kind known geologically as Old Red Sandstone, and, as might be expected in a structure of this

<sup>2</sup> See Arch. Cambr. (Ser. 2), v, 94-6.

<sup>&</sup>lt;sup>1</sup> Trans. of the Woolhope Field Club (1882), 175-80; (1901-2), 194-9.

character, are entirely unworked. Probably they have been merely selected for the purpose without any attempt to shape them. The arrangement of ten uprights and a long capstone are features which suggest a relationship to such cromlechs as some of those which still exist in Anglesey and Carnarvonshire.<sup>3</sup> An ancient road runs along near the cromlech and on the south-west side of it.

Cromlech at St. Margaret's Park .-- A curious cruciform earthwork at St. Margaret's Park is referred to in another part of this article. About two hundred and fifty yards north-east of this earthwork there is (or was in 1854 when the account was written) 'a flat horizontal slab of limestone like the upper stone of a cromlech.' Its form was oval, measuring 27 ft. 6 in. by 9 ft. 6 in., with an average thickness of 2 ft. 6 in. 'This stone,' the writer of the account continues, 'lies on the declivity of the wooded hill, its face on the western side being level with the adjacent surface of the ground, and on this side there is a trench, 2 ft. wide and 21 ft. deep, which appears to have been at one time much deeper, and to have been filled up by soil brought down by the rain into it. On the east side, and partly on the north, the ground slopes from it, and a cavity appears under the slab. Half a century ago, as stated by an old man in the neighbourhood, it stood wholly free from the ground on certain upright stones. There is still at the west end of the slab, but now at a slight distance from it, an upright stone, flat at top, which may have originally been one of those on which it was It seems probable that these may be the remains of a fallen supported. cromlech.'

The Queen Stone.—This stone stands in an open field about a quarter of a mile to the north-east of a new bridge, which has superseded and occupied the site of the ancient Huntsham Ferry. The stone, which rises about seven feet six inches above the surface of the ground, is a block of Old Red Conglomerate containing angular, subangular, and rounded fragments of older rocks. Mr. J. G. Wood, F.S.A., judging from the comparatively small size of the pebbles, and their small proportion to the mass of the enclosing sand rock, considers that it had formed part of the lower, rather than the upper, beds of the conglomerate. His precise account has furnished the chief facts which are here given of a stone which, it not of artificial shape, is so remarkable and striking in its appearance that it must always have occupied a prominent place in local folk-lore and superstition.

It is manifest that the Queen Stone is not in situ so far as vertical position is concerned, but it is probable that it rests on the surface of the old denuded beds of rock underground. It may, indeed, have been brought down to its present level by a process of vertical denudation similar to that which the sarsen-stones, or grey wethers, on the chalk downs have undergone.

The chief point about the stone, more remarkable even than its singular shape and vertical position, is the deeply-grooved character of its sides. These grooves are very regular in their direction, extend from the top to the bottom, are strongly marked, especially on the eastern face, and are thirteen in number. A careful examination leads Mr. Wood to the conclusion that

The 'Queen Stone' at Huntsham, Trans. Woolhope Nat. Field Club (vol. for 1900-2), 229-31.

<sup>&</sup>lt;sup>3</sup> Llligwy, Ystymcegid, &c., for example. See Portfolio of Photographs of the Cromlechs of Anglesey and Carnarvonshire. By J. E. Griffith, 1900.





THE QUEEN STONE, NEAR HUNTSHAM FERRY

#### EARLY MAN

at some time after the block was detached, as a shapeless mass, from its parent bed, it was subjected to a flood of falling water charged with sand and other grinding materials, with the result that a number of grooves were formed upon it.

The name which this stone bears—'Queen Stone'—is believed to be derived from 'Cwén-stán,' or woman-stone, a term used by our Saxon fore-fathers in allusion to the resemblance the grooved stone bears to the folds of a woman's dress. From the south-west side, especially when seen from a short distance, there is a kind of neck visible, which in a dim light might easily be mistaken for the head or upper part of a woman.

Another monolith, of larger size, with which the Queen Stone may be compared, is the mass of millstone grit known as the 'North Arrow,' which stands erect at Boroughbridge, Yorkshire. It is 18 ft. high and 22 ft. in circumference, and is believed to weigh about thirty-six tons. It forms one of the well-known group of standing stones called the Devil's Arrows, of the artificial character of which there can be no doubt. The North Arrow has several parallel grooves running in a vertical or nearly vertical direction, and due, it is believed, to the action of the weather.

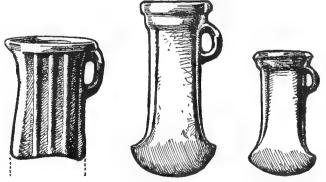
#### THE BRONZE AGE

The great importance of the Bronze Age as a phase of human culture has already been briefly referred to, and it would be difficult to over-estimate the significance of the introduction of metal into this county. The possession of metal must have given the warrior, the hunter, and the artificer immense advantages over those enjoyed by tribes whose weapons and tools were made only of stone, bone, horn, and wood.

The knowledge of bronze is believed to have been brought to our shores by a branch of the Celtic family known as Gaels, and there is reason to believe that the new race quickly became friendly with the Neolithic inhabitants. This is indicated in some parts of England by contiguity and evident contemporaneity of interments of the two peoples. Judging from the remains found in the district we now know as Herefordshire, one may fairly assume that the Neolithic population was sparse; although one would be prepared to expect

that a thorough exploration of the whole of the county would produce evidence of more general and extensive population. However this may be, the Bronze-Age remains already found and recorded are certainly more numerous and more important than those of the Stone Age.

Bronze implements and weapons have been procured from Aston Ingham, Bishopstone, Ardley Moor, near



Bronze socketed Celts found at Dorstone, Vowchurch, and Turnastone  $(\frac{1}{2})$ 

(Now in Hereford Museum)

Bucknell, Dorstone, Hereford, Much Marcle, Newton Clodock, St. Margaret's, Turnastone, Vowchurch, and Weston under Penyard. As these will be described in the topographical list at the end of this article it is not



Bronze socketed Celts in Hereford Museum  $(\frac{1}{2})$ 

(Probably found in Herefordshire, but exact locality unknown)

necessary to trouble the reader with precise particulars in this place. Attention may be drawn to the fact, however, that a large proportion of the objects found consist of socketed celts, palstaves, swords, several ferrules 5 in. long, and other forms which are characteristic of a late stage in the Bronze Age. The natural inference to be drawn from this is that Herefordshire was not inhabited by the Bronze-Age people until a comparatively late period. when, in fact, the various forms of weapons and implements had already reached their full development. The remote position of Here-

fordshire in relation to the comparatively easy sea-crossing between the Continent and the Kentish coast (whence the Bronze-Age men would naturally come) is certainly favourable to such a theory.

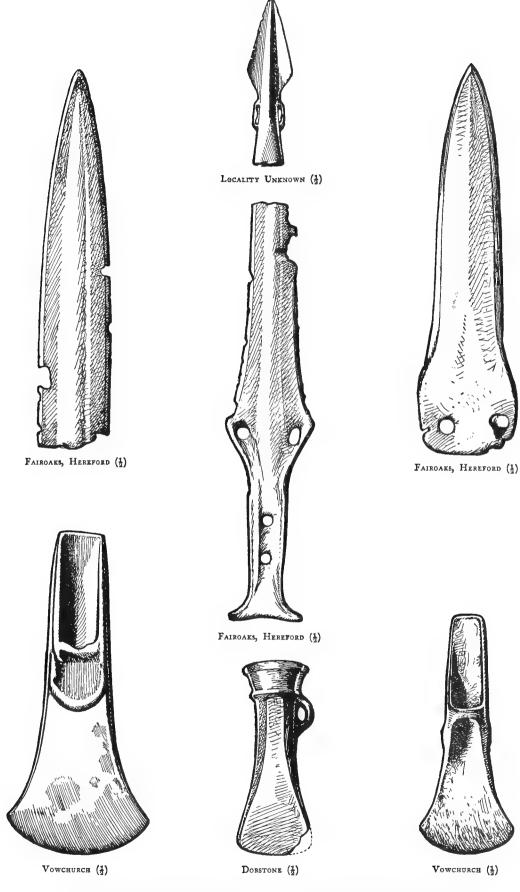
In addition to metallic implements there appear to have been at least three well-authenticated instances of Bronze-Age burial, viz.:—

- 1. Brandon.6—At a distance of about a quarter of a mile from Brandon there are two barrows, one of which was opened by Sir Edward Harley in 1662. It was found to contain charcoal, burnt bones, and an urn 2 ft. high, full of bones. This was probably a Bronze-Age interment preceded by cremation.
- 2. St. Weonards.7—A large mound, measuring at base about one hundred and thirty feet, was opened in 1855 by Mr. Mynors, when its sepulchral character was abundantly proved by the discovery of funereal ashes and fragments of human thigh bone, shoulder blade, and pelvis. No certain proof of period was found.
- 3. Cist burial at Llangarren.—A discovery of considerable importance was made in Llangarren, in November 1877. An account of the circumstances of the discovery which was published by the Cambrian Archaeological Association 8 furnishes the following particulars:—During the operation of ploughing one of the fields on Tredychan Farm, in the parish of Llangarren, one of the horses dropped into a large hole that suddenly opened beneath its An examination of the cavity revealed the fact that the rectangular chamber which had been broken into was inclosed by four large slabs of stone two inches or more in thickness at the sides, a similar slab of stone had been placed over the chamber, whilst at the bottom there was simply the original sandstone rock. The angles between the side stones were roughly filled up with small stones. Within this cist nothing of interest was found excepting a human skull belonging to a full-grown man. The dimensions of the cist, viz., about 3 ft. wide, between 3 ft. and 4 ft. long, and 4 ft. deep, suggest that the body was buried in a crouching or contracted posture. In

<sup>8</sup> Arch. Cambr. (Ser. 4), ix, 76-7.

<sup>&</sup>lt;sup>6</sup> Camden, Brit. (ed. Gough), iii, 78.

<sup>7</sup> An account by Dr. Thomas Wright was published in Arch. Cambr. (Ser. 3), i, 168-74.



Bronze Age Antiquities found in Herefordshire (now in Hereford Museum) 163

the absence of any archaeological remains, it is difficult to form a positive opinion as to date, but the theory that it was an interment of the Bronze Age appears to be open to no objection.

#### EARLY IRON AGE

The period of prehistoric time during which iron was used does not appear to be well represented among the remains of antiquity hitherto found in Herefordshire. It is quite probable that further research may have the effect of bringing to light definite evidences of what was at once the last and the most interesting period of prehistoric time.

The ancient British coins found in Herefordshire include one of Cunobelinus from Weston under Penyard, a gold coin inscribed EISV from Leominster, and another gold coin found at Kenchester.

#### SITES OF ANCIENT DWELLINGS

There is an important group of depressions, doubtless the floors of ancient hut-dwellings, in the glen which lies between Hollybush Hill and Midsummer Hill, two eminences of the Malvern Range in the parish of Eastnor. Mr. F. G. Hilton Price pronounces this the site of a British town about 1,100 ft. in length. In the interior of the camp which incloses the top of Hollybush Hill there are many more hut hollows, or circles where some sort of habitation probably existed. Excavation of the site, however, as is the usual case with remains of this kind, yielded no proofs of the period when, or the people by whom, the dwellings were occupied.

On the east face of Midsummer Hill, which is 958 ft. high, and considerably higher than Hollybush Hill, are several lines of hollows, which have been habitations. They are disposed in ten or eleven ranges of terraces, with no less than 214 hut hollows visible, and thirty more under the brushwood.

Within the magnificent fortress known as Herefordshire Beacon there are numerous hut depressions <sup>10</sup> which unquestionably mark the spots where human dwellings once existed. The age of the dwellings is, however, a point which has not yet been definitely proved. They may be as old as the actual ramparts of the camp, or possibly not quite so ancient, but their general character, their position, and their arrangement, are favourable to the theory that they belong to some time within the limits of the prehistoric past. The discovery of 16th-century pottery in some of the hollows, and of Roman remains in others, points probably to subsequent occupation of the sites, perhaps some centuries after the original dwellings were erected.

In the year 1854 an account of certain discoveries at St. Margaret's Park, near Hereford, was communicated to the Archaeological Institute 11 by Rev. Dr. Jenkins of Hereford. From this it appears that in the year 1854 excavations were carried out at three distinct points with a view of determining the age, character, and purpose of a curious cruciform earthwork in that neighbourhood, situated about thirteen miles south of Hereford. Near this

Journ. Anthrop. Inst. (1881), x, 319.
 Arch. Journ. xi, 55-6.

<sup>&</sup>lt;sup>10</sup> Op. cit. 324. <sup>12</sup> Ibid. x, 358.

#### EARLY MAN

earthwork there were several basins or cavities of considerable size 'supposed to have been possibly the sites of ancient habitations.' A description of these cavities was published in the Gentleman's Magazine for 1853, p. 388; whether they were connected with the earthwork in point of date, however, does not appear. The earthwork itself does not appear to have received a satisfactory explanation.

The writer desires to record his obligations to Mr. H. Cecil Moore, of Hereford, for information courteously given during the preparation of this article.

#### TUMULI

The following list of tumuli in Herefordshire includes those which appear to be of sepulchral origin, but without the evidence which can be gained only by excavation it is impossible to say whether in every case they contain traces of interments:—

Aston.—Tumulus with moat.

BRAMPTON BRYAN.—Tumulus I mile west of.

BRAMPTON BRYAN.—Mound in orchard by Lower Pedwardine (house).

Brilley.—Mound I mile to the west of hamlet, and another in Cwinma Green Coppice.

COMBE.—Tumulus to north-east of Combe.

DORSTONE.—Tump near Fowmine Farm. Another tump \( \frac{1}{4} \) mile to the south-west of it.

DOWNTON .- Tumulus just north-west of St. Giles's Church, Downton on the Rock.

Eastnor.—Tumulus within camp.

GANAREW.—Tumuli within camp in Deer Park.

HENTLAND.—Site of tumulus known as 'Chapel Tump.'

HUNTINGTON.—Turret tump to the north of Little Hengoed; another mound ½ mile south of this.

KING'S CAPLE.—Tumulus called 'Caple Tump.'
KING'S PYON.—Tumulus just north of Butt House.

KINGTON.—Mound to the east of Lilwall Farm.

LEINTWARDINE. —Two large tumuli ½ mile west of. Possibly refuges for cattle in flood-time.

LINGEN.—Tumulus \(\frac{3}{4}\) mile north-east of Lingen Castle.

LLANCILLO.—Mound (? tumulus).

Longtown.—Mound (? tumulus).

Moreton.—Castle tump, just north of Ashton Eye.

Much Dewchurch.—Tump in village.

St. Weonards.—Tump to the south-west of the church.

THRUXTON.—Tumulus to the west of Thruxton Church.

Vowchurch.—Tump just north-east of Chanstone Court.

WALFORD.—Large tumulus at.

WALTERSTONE.—Mound (? tumulus).

#### TOPOGRAPHICAL LIST

Arthur's Stone, Bredwardine Hill.—An important cromlech [Trans. Woolhope Field Club (1882), 175-80; (1901-2), 194-9; Arch. Cambr. (Ser. 2), v, 94-6].

Aston Ingham.—Bronze rapier-shaped blade in collection of Sir John Evans. It is 14 in. long, and the rivet-holes cut the margin of its base [Evans, Bronze Imp. 250].

BISHOPSTONE.—Bronze celt, in the possession of Rev. G. H. Davenport, of Foxley.

Brandon.—Barrow containing urn with burnt bones [Camden, Brit. (ed. Gough), iii, 78; Trans. Woolhope Field Club (1882), 254].

Bucknell.—Bronze palstave, with side and stop-ridges found at Ardley Moor near Bucknell; now in the British Museum [Evans, Bronze Imp. 74].

Dorstone, Turnastone, and Vowchurch.—Four bronze socketed celts, each with one loop, and of varying forms. (See illustrations.) The largest, which was decorated with parallel ribs, is broken. They are now in Hereford Museum, where they are described as having been found in the three parishes named.

EASTNOR .- Numerous traces of ancient dwellings between Hollybush Hill and Midsummer Hill.

EATON BISHOP .- Bronze celts found near Stoney Street; now in Hereford Museum.

GOODRICH—'Queen Stone,' situated at Huntsham or Huntesham, on the River Wye.

HEREFORD.—Two rather well-chipped flint arrow-heads, each about two inches long, found at Oldcastle, near Hereford. They are now in Hereford Museum.

Part of bronze sword, nearly ten inches long, found at Fairoaks, Hereford. It has two rivet-holes in the grip or handle, and two at the base of the blade. It is now in

Point of bronze sword 8\frac{3}{4} in. long, found at Fairoaks; also in Hereford Museum.

Bronze dagger-blade, 81 in. long, with two rivet-holes for attachment to the handle, found at Fairoaks. Now in Hereford Museum.

HEREFORDSHIRE.—In the Museum at Hereford there are two curious socketed and looped celts and a well-made socketed spear-head 3\frac{3}{4} in, long. All are believed to have been procured in the county, but the precise locality is not recorded.

Kenchester.—British gold coin; now in the possession of Mr. C. Hardwick.

KINGTON.—Stone hammer of the Neolithic or (possibly) Bronze Age. In the possession of Mr. C. Fortey.

LEDBURY.—Neolithic flint implements.

LEOMINSTER.—Arrow-heads of uncertain date.

Gold coin (British) inscribed EISV [Evans, Coins, 494].

Llangarren.—Cist interment [Arch. Cambr. (Ser. 4), ix, 76-7].

Much Marcle.—Winged bronze celt, found in a camp [Evans, Bronze Imp. 90].

NEWTON CLODOCK.—Bronze celts. In the possession of Mrs. Jenkins, of Holmer.

Ross (near).—Winged bronze celt [Evans, Bronze Imp. 91].

St. Margaret's.—Cromlech associated with cruciform earthwork. Bronze ferrule [Evans, Bronze Imp. 340; Arch. Journ. xi, 55].

St. Weonards.—Barrow containing cremation burials [Arch. Cambr. (Ser. 3), i, 168-74]. Sutton St. Nicholas.—The Devil's Stone, possibly remains of a cromlech [Camden, Brit. (ed. Gough), iii, 86].

Vowchurch.—Fine chipped flint arrow-head, about three inches long. It is of the doublebarbed and stemmed type, but one barb is defective.

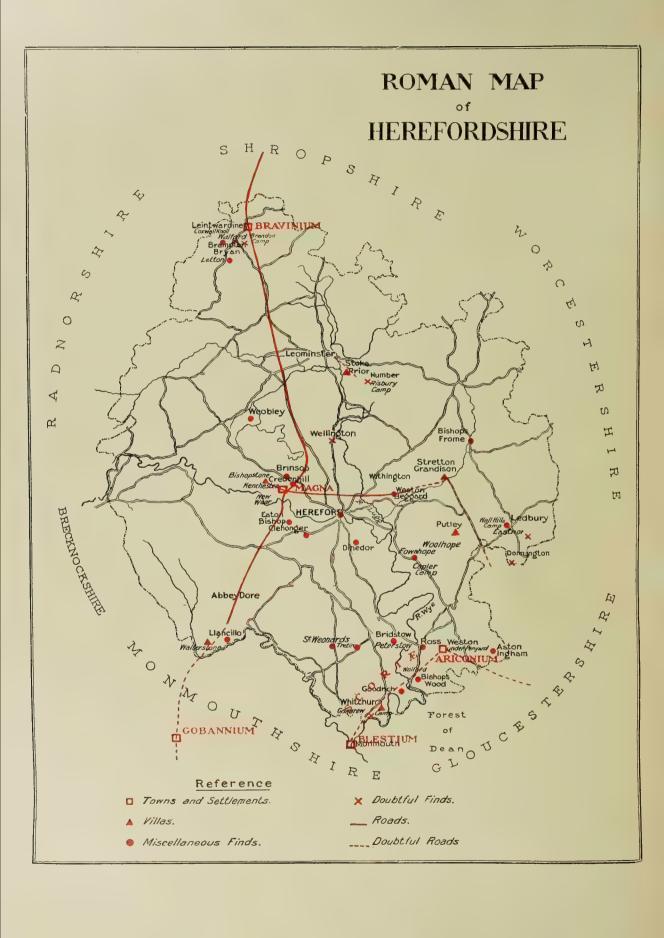
Two bronze palstaves,  $6\frac{3}{4}$  in. and  $5\frac{1}{8}$  in. respectively in length. Now in Hereford Museum. The larger example is fine and well-preserved, the smaller is corroded.

WESTON UNDER PENYARD.—Bronze celt [Evans, Bronze Imp. 78].

Coin of Cunobelin [Evans, Coins, 456, 568].

Whitchurch.—King Arthur's Cave, possibly remains of a megalithic structure. Many flint flakes found here [Arch. Cambr. (Ser. 4), iii, 74].

WYE (RIVER).—Chipped and ground celt of white stone found at some unrecorded spot in the River Wye. Now in the Museum at Hereford.



PREVIOUS article in this volume has dealt with the district of England now known as Herefordshire as it was in prehistoric times, and has described the remains of its original inhabitants, the products of their civilization, and the traces of their military and defensive operations. In the present section we reach the period when history begins in Britain, but, as will be seen, the historical records properly so called are still exceedingly meagre, and we are forced to rely almost exclusively on archaeological evidence.

As there has been occasion to note in dealing with other counties, the treatment of the subject under the heading of a comparatively modern political division must necessarily be somewhat conventional. But while it is essential for the scheme of this particular work, it is on the whole the most convenient method to adopt in dealing with such a subject as Roman Britain. Not only is it a method long recognized in our topographical literature, and one that appeals most strongly to local interests, but the counties naturally present themselves as the only divisions available for the purpose, where such a subject is treated, not as a whole, but in sections. In the Roman period, as in the preceding and part of the succeeding periods, the divisions of Britain were vague and ill-defined, following no definite geographical or political system. And since our treatment of the subject is necessarily archaeological rather than historical we feel that the less apology is required if this article is mainly confined to a description of the actual remains found within the borders of this shire.

The Roman occupation, begun under the Emperor Claudius in 43 B.C., advanced with great rapidity all over Britain, and within three or four years the whole country as far as the Exe, Severn, and Humber was in the invaders' hands. Among others the 14th and 20th legions penetrated to Wroxeter and Chester, perhaps, as Professor Haverfield suggests, making Watling Street in the course of their march. For a time the more remote districts were left under the protection of native princes, but in the course of the next thirty years Ostorius Scapula and his successors were engaged in reducing the tribes of the hilly districts to the west and north, and during this period these protected districts were gradually absorbed.<sup>2</sup> It was in the course of these operations that the campaign described by Tacitus on the place, in which Ostorius

<sup>&</sup>lt;sup>1</sup> The writer has to acknowledge his indebtedness to Professor Haverfield's writings in the *Arch. Surv.* of this county and in *V.C.H. Shrops.* Mr. Walter Pilley of Hereford has also contributed much useful information.

<sup>2</sup> V.C.H. Shrops. i, 206.

<sup>3</sup> Annals, xii, 31 ff.

penetrated across Herefordshire into the territory of the Ordovices, whose southern boundary is thought to have lain between the Wye and the Teme, and brought to subjection the native prince Caradoc or Caractacus after a fierce battle. The site of that battle has been the subject of much natural, if futile, conjecture. Without venturing to provoke criticism by urging the claims of any particular spot as its site, we may, with Merivale, admit the possibility of its having taken place within the bounds of Herefordshire. The locality which has been thought to suit the description of Tacitus is Coxall Knoll near Brampton Bryan, on the borders of, and partly within, Shropshire.

The region which to us represents the county of Hereford lies midway between the midland plains and the highlands of South Wales. Professor Haverfield has pointed out 5 that its geographical position and internal configuration have had much influence on its early fortunes, it being by position the borderland of the lowland and upland districts. Even before the Roman conquest it formed the frontier between British tribes, the Gloucestershire Dobuni on the one hand and the Welsh Silures and Ordovices on the other; and in later times it became the limit of the English advance into Wales. the time of the Roman occupation it was, with the exception of the Wye valley and the mining district in the south, distinctly unfitted to become a residential district. The greater part was a wide waste of uncultivated forest, while on the western border the natural features formed admirable defences for There were in fact few attractions for settlers, and the native Britons. remains of the Roman period are chiefly found in two portions, the remainder of the county having been thinly inhabited and imperfectly developed. Wye valley, from its luxurious character, was by nature exceptionally prolific, and moreover was not occupied to any great extent by British entrenchments; while the mining district about Ross, from the wealth afforded by the iron, would at least provide a subsistence for those who occupied it. Moreover, both these districts were well removed from the line of the higher hills which now form the western border, and not only remote from those hills, but also from most of the British strongholds, which must have offered a menace to any foe attempting to occupy this part of the country.

The physical features of the district are of interest, as sharing the nature of the two great divisions of Britain, the distinctive importance of which has been more than once pointed out by Professor Haverfield. The eastern part of the county may be said to belong to the Lowlands of Britain, being devoid of any great height (except the Malvern Hills along its edge), and in parts descending to quite a low level, especially in the Wye valley. The western half, on the other hand, is throughout hilly in character, and may be said to form part of the Highlands; on its confines it is shut in by a natural border of mountains which in some parts attain a height of 2,000 ft. to 2,500 ft. Thus as a natural consequence the Romans avoided the western districts, and chose for the site of their principal road a way through the middle part of the county, where the general level varies from 200 ft. to 400 ft. above the sea. 'The internal configuration of the county has affected its

<sup>5</sup> Arch. Surv. of Herefs. (1896), 2.

<sup>&</sup>lt;sup>4</sup> Merivale, Hist. of the Rom. under the Empire, vi, 242; see also Arch. Cambr. (Ser. 2), ii, 45; Duncumb, Hist. of Herefs. i, 14; Woolhope Club Trans. 1881, p. 182; Roy, Military Antiq. pl. 40, p. 171; Hartshorne, Salopia Antiqua, 49 ff.

history no less than its position.'6 Steep wooded hills, narrow and secluded valleys, mountain streams with swift currents, have effectually prevented any great possibility of a residential and peaceful occupation except in the two districts previously mentioned, round Hereford and Ross. Hence we find in those parts the greater proportion of the Roman remains, which, taken as a whole, are extremely scanty.

The frequency of camps is the only feature which 'contradicts the barrenness of the archaeological record. Herefordshire is a land of camps," a fact which at first sight points to a lack of the signs of peaceful occupation as a probable feature. But out of a possible number of seventy earthworks in this small county, 30 miles in width and 40 miles in length, only one can certainly be classed as Roman. A Roman origin has indeed been claimed for others, and it is also suggested that the Roman occupation of the already existing British camps was of frequent occurrence.8 This is however unlikely, because the British camps were for the most part formed in sites which would not meet with favour, judged from the point of view of the Roman system of military tactics. For these reasons it is better to consider the site of Leintwardine in the north of the county as that of the one authentically Roman camp.9

On the whole, therefore, we are unable to regard Herefordshire as coming within the limits of the military district of Roman Britain. Lying as it does on the border of the hilly and unsettled region, it yet comes almost wholly within the area of the more peaceful 'lowland' district of the midland plain. It comprises no Melandra or Gellygaer, and the one camp where the Romans defended themselves against the highland foes of the tribe of the Ordovices is of no great size or importance. There are no traces of troops or permanent garrisons, of civil administration or municipal life. The inhabitants were not Romans, but Romanized Britons.10 We are therefore prepared to find the characteristics of the Roman period similar in the main to those of the neighbouring counties of Shropshire and Worcester: a sparse and moderatelycivilized population, Romanized, it is true, in language, arts and industries, yet in the absence of any large centre of life such as Glevum or Viroconium, leaving behind it but few traces of the life of the period. Its civilization was, as Professor Haverfield phrases it, 'Romanisation on a low scale.'

Much that the same writer has said of its northern neighbour will apply equally well to our county.

In the Middle Ages it was a border county covered with strongholds large or small, and houses fortified against the dangers of Welsh raid and pillage. In our own days it comprises ... important agricultural areas, and most of it is well . . . inhabited. The Roman age offers neither border fortresses nor crowded populations . . . The district soon ceased to be a border fronting hostile tribes, and we may confidently include it among the peaceful portions of Roman Britain. On the other hand its civilian life did not develop widely; on the contrary . . . it was thinly peopled . . . The land lay remote from the centres of Romano-British activity, and still remoter from the centres of Roman Imperial life. Nor had it in itself any very obvious attractions for inhabitants.11

Thus the district remained for nearly four centuries. We have no exact record of the time when the Romans were forced to abandon this part of

11 V.C.H. Shrops. i, 215. 169

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<sup>&</sup>lt;sup>6</sup> Arch. Surv. of Herefs. (1896), 2.

<sup>7</sup> Ibid. 3; see generally art. 'Earthworks.'

<sup>8</sup> See for instance Watkin in Arch. Journ. xxxiv, 366; also Woolhope Club Trans. 1885, p. 335, where 'overwhelming reasons' are given for the Roman origin of Risbury Camp in Humber parish.

9 See below, p. 184.

10 Arch. Surv., 4.

11 V.C.H. S

the island; but there are signs that its towns were destroyed by violence and fire, and as there is no evidence of remains dating later than the beginning of the 5th century we may assume that their fate was synchronous with that of Viroconium, and that the English invaders swept the whole of the country from Severn to Wye about the time of the Roman departure from Britain.

The Roman remains in the county occur for the most part (1) along the one certain Roman road, (2) in the vicinity of Ross.<sup>12</sup> Of the course of that road, a part of Watling Street, we shall speak presently in detail; it may suffice now to say that it ran from Viroconium (Wroxeter) to Isca Silurum (Caerleon), crossing the county from north to south, and passing the two stations of Bravinium (Leintwardine) and Magna (Kenchester).

At Leintwardine, close to the Shropshire border, the researches of two local antiquaries have established the existence of a regular entrenchment, 14 acres in extent, within the area of which Roman tiles, pottery, coins, &c. have been dug up. The mileage of the Antonine Itinerary shows that a station named Bravinium was situated in the neighbourhood of this place, and though for a long time its site was sought in the neighbouring camp of Brandon, then thought to be Roman, the arguments for identifying it with Leintwardine, first advanced by Reynolds and Pointer, seem to be fully justified. It was in any case a small and unimportant place.<sup>18</sup>

Kenchester, near the Wye, has yielded more extensive evidence of Roman occupation. It was a small town of some 17 acres in extent, with suburbs beyond, of which the villa at Bishopstone appears to furnish some testimony. It is usually identified with the Itinerary station of Magna or Magnae, as corresponding to the distances given from Bravinium and Gobannium (Abergavenny) respectively. In the south-west of the county, at Weston under Penyard near Ross, there are remains of a town or village which was connected with the iron mines of the neighbouring Forest of Dean. Here there seems to be good reason for placing the Itinerary station of Ariconium.<sup>14</sup>

There are besides these a few detached Roman sites. At Blackwardine near Stoke Prior, skeletons, pottery, coins, and possible remains of kilns were found in making the railway, and some traces of a Roman road have been observed. Another site is Stretton Grandison, also apparently on a Roman road, where some interesting objects have been found; but the attempt to identify it with the supposed Cicutio or Circutio cannot be supported. A villa has been noted, but not explored, at Putley near Ledbury, and another villa is at Walterstone where Watling Street passes into Monmouthshire. Attention may also be called here to the not infrequent occurrence of 'Wall' and 'Street' place-names in the county, as Walford, Stretford, Stretton Sugwas, the last two being, as well as Stretton Grandison mentioned above, on the line of known roads.

The sum of Roman remains in Herefordshire amounts therefore to two small towns and one insignificant camp or station, three or four villas or inhabited spots, one certain road, and a few isolated relics, which in all form only a small total, and throw little light on the people whom they

<sup>&</sup>lt;sup>19</sup> Arch. Surv. 4. <sup>13</sup> Ibid.; and see below, p. 186. <sup>15</sup> See Topog. Index.

<sup>&</sup>lt;sup>17</sup> Arch. Surv. 5, and Topog. Index.

<sup>14</sup> Arch. Surv. 5; and see below, p. 187.

<sup>18</sup> Arch. Surv. 6.

represent. There is no evidence of wealth on the part of the inhabitants, and not much to show the occupations and habits of the people. The kilns at Blackwardine and the querns which have been found here and there point only to purely local industries.

There is, however, one exception which must be made to the foregoing statement. The discovery of traces of the iron industry in the south of the county must not be overlooked. That iron-mining was carried on near Ross is testified by the nature of the soil in that part, where the ploughed fields show a black cinereous soil instead of the warm red which characterizes the county. Iron scoriae and cinders may be picked up anywhere in this neighbourhood, together with imperfectly-smelted iron ore. 'Handblomeries' and forges have been found on Peterstow Common, and frequently in the neighbourhood of Goodrich Castle. Thomas Wright mentions scoriae as being discovered in the following parishes: Bridstow, Ganarew, Goodrich, Hentland, Llangarren, Peterstow, St. Weonards, Tretire, Walford, Weston, and Whitchurch. But these remains form the only sign of any settled industry in the county.

In conclusion it is impossible to avoid pointing out one possible explanation of the barrenness of the county in Roman remains. There has been an almost total absence of any proper excavations or investigations under competent direction. Even in the case of the towns and settlements we are dependent for all our knowledge on casual and unscientific exploration, and vague unsystematic records. Of villas and country houses we know practically nothing. With the example before our eyes of a large town practically unexplored in the adjoining county, there is perhaps some excuse for Herefordshire, which does not boast such a flourishing archaeological society.<sup>21</sup> But it is impossible to believe that such sites as Kenchester and Ariconium would not yield under proper investigation far more fruitful results than they have done hitherto. Meanwhile this fact must be emphasized as the partial cause of a somewhat meagre and incomplete record of Roman remains in Herefordshire.

A note on the Roman coins discovered in Herefordshire may not here be amiss. Their total number has been computed at some 22,000, but this is of course based on very imperfect evidence, and where definite information is frequently lacking it is wiser not to attempt any estimate. But at all events that number represents a minimum. The bulk of these coins emanate from a single hoard, discovered in 1895 at Bishopswood in the parish of Walford, and containing no less than 18,000 coins, of which 17,550 were preserved and examined. The interesting feature of this hoard is that the coins are comprised within narrow chronological limits, all except three being copper coins of the Constantine family, and therefore to be dated between the years A.D. 290 and A.D. 360. They are from various mints, but none of

Wanderings of an Antiquary, 14 ff.; see also Nicholls, Ironmaking in Olden Times, 9; Woolhope Club-Trans. 1882, p. 258; Arch. Journ. xxxiv, 364; Arch. Surv. 5 and map; see also Topog. Index, s.vv. Goodrich, Peterstow, Whitchurch.

<sup>19 &#</sup>x27;Bloomery.' 'The first forge in an iron-works, through which the metal passes, having been melted from the ore, and in which it is made into blooms.' (New Engl. Dict.) A 'bloom' is a mass of iron which has undergone a first hammering (ibid).

<sup>&</sup>lt;sup>21</sup> The corresponding body in Herefordshire, the Woolhope Field Club, has done excellent work in other spheres, but is not primarily an archaeological society.

special interest.22 The only other hoard, strictly so called, was found in 1855, in the same part of the county, at Coombe Wood near Aston Ingham.23 Here the number is reckoned at 2,000, all small copper coins, covering the period A.D. 235-340, from Maximinus Daza to Constantine II; but it has not been recorded in great detail. Many coins have been found at one time or another on the sites of Magna (Kenchester) and Ariconium (Weston under Penyard). Of those found at Kenchester about a hundred and fifty are now in the museum at Hereford; they range from Domitian to Gratian (A.D. 81-383), but are nearly all of copper. Several of the later ones were minted in London. Roach Smith mentions some interesting coins of the reign of Carausius (A.D. 287-93).24

In 1870 a large series of coins, numbering about one hundred, from the site of Ariconium, was exhibited to the Archaeological Association at Hereford. Besides a silver consular coin of the Cordia family they range from Claudius to Magnentius (A.D. 41-353), most of the intervening emperors being represented.25 The only other finds of interest recorded are a coin of Lucilla (A.D. 161), found in Capler Camp near Fownhope; and a series from Blackwardine near Leominster, ranging from Augustus and Agrippina II to Honorius (A.D. 49-433).26

#### ROADS

The Roman roads in Herefordshire present no problems of special interest or complexity. Two roads passing through the county occur in the Antonine Itinerary, about one of which there is little uncertainty, but of the other nearly all traces have disappeared. Besides these there are several roads with more or less claim to antiquity, which will be considered in due course.

I. The Itinerary road from Wroxeter (Viroconium) to Caerleon (Isca Silurum) ran, as already noted, due north and south from one end of the county to the other. It is known in different parts of its course as (a) East Street; (b) Watling Street; and (c) Stoney Street. Its course, with that of two small branches from it, can still be traced with considerable precision, though in many parts it is no more than a mere track. The distances of the stations thereon are given in the Itinerary as follows (Iter xii):—

					M.P.M.			M.P.M.
Iscae (Caerleon)					•	Magnis (Kenchester) .		xxii
Burrio (Usk) .	•				. viiii	Bravonio (Leintwardine)		
Gobannio (Aberga	ve	nny	r)		. xii	Viroconio (Wroxeter).	•	xxvii

Tracing the course of the road in the reverse direction, from north to south, we find it clearly marked in a southerly direction through South Shropshire.1 From Clungunford it enters the county as an ordinary by-road near Marlow, after which its traces are lost for about a mile, until just north of Leintwardine. After forming the main street of that village, the road,

1 V.C.H. Shrops. i, 267.

<sup>23</sup> See Topog. Index, s.v. Aston Ingham. <sup>22</sup> For further details see Topog. Index, s.v. Walford. For further details see 1 opog. Index, s.v. vialities.

24 Journ. Brit. Arch. Assoc. iv, 286. Further details of the Kenchester coins are given by Dr. H. C.

Moore in the Woolhope Club Trans. 1896, pp. 108, 151, and Appendix, p. 1, ff. See also p. 182, below.

25 Journ. Brit. Arch. Assoc. xxvii, 210.

26 See Topog. Index, s.v. Stoke Prior. 25 Journ. Brit. Arch. Assoc. xxvii, 210.

here known as Watling Street, turns more to the south-east to Paytoe, whence it forms an almost obliterated track to about a mile beyond Wigmore, where it coalesces with the main road from Knighton to Leominster, and runs due south through Aymestrey and Mortimer's Cross.<sup>2</sup> Here it leaves the modern main road and continues as a by-road, forming a parish boundary, for about a mile and a half, still preserving the same direction; but at Brook Bridge, where it crosses the Kington branch railway, it again becomes a mere track, forming for some distance a parish boundary. At Stretford it again joins a main road, with which it coincides as far as Canon Pyon. Here it again diverges, and passing Tillington Court, slopes to the westward round Credenhill Camp, and so reaches the Romano-British town at Kenchester.

Here two branches diverge, one leading westward to the villa at Bishopstone, the other eastward by Stretton Sugwas and Holmer to Stretton Grandison (see below). The main road continues in a south-west direction over the Wye, which it probably crossed at Old Weir by a ford or causeway (see below, p. 180). From the Wye it can be traced under the name of Stoney Street, past Eaton Bishop and over Worm Hill and Brampton Hill to Abbey Dore, where a section was opened at the railway station in 1893, 18 in. below the surface. It is described as being 13 ft. wide, pitched with pieces of local limestone larger than a man's head, and showing two distinct wheel tracks 4 ft. apart. Dr. H. C. Moore notes the absence of coping as a border which is seen in the Roman roads in the Forest of Dean. Its further course is obscure, but it probably ran past Ewyas Harold, Llancillo, and Walterstone, where there is a villa, and where it leaves the county, running due south to Abergavenny.6

Professor Haverfield says:7

I have had no means of ascertaining whether the name Watling Street in Herefordshire is a genuine old one, or one bestowed by antiquaries. Besides the two chief Watling Streets, the one which connects London with Wroxeter, and the one in Northumberland, there are in England several lesser ones, in Lancashire, Cheshire, etc., and the antiquity of the names, as applied to all these lesser examples, requires investigation. The name has perhaps a fair claim to be considered genuine in Herefordshire, for Horsley seems to say that it was known to the 'country people' in his day, about 1720-30; but his statement is rather vague. 10

2. The thirteenth Iter, from Isca to Calleva (Silchester), gives the following route:—

				1	M.P.M.					V	4.P.M.
Burrio (	Usk) .					Ariconio (We	eston).				xi
Blestio (					xi	Glevo (Gloud	ester).				xv, &c.

Accepting the generally-received identification of Ariconium with Weston under Penyard near Ross, we see that this road must have passed

<sup>8</sup> Its course, according to Codrington, is indicated by a footpath and a lane due south by Old Weir House (op. cit. 81); see also O.S. 6-in. xxxiii, SW.

Some of the pavement remained recently near Woodyatts Cross (Codrington, loc. cit.).

<sup>&</sup>lt;sup>2</sup> From Wroxeter up to this point, says Codrington, it differs much in character from the Watling Street proper, having no long pieces of straight road; but its course is now mainly indicated by parish boundaries (Roman Roads in Britain, 80).

<sup>&</sup>lt;sup>5</sup> Woolhope Club Trans. 1801, p. 190; 1903, p. 165; Arch. Surv. 14.
<sup>6</sup> On the course of the road in general see Arch. Surv. 14; Arch. Cambr. (Ser. 5), v, 194; Arch. Journ. xxxiv, 369; Woolhope Club Trans. 1903, pp. 163, 188; Codrington, Roman Roads in Britain, 80; Duncumb, Hist. of Herefs. i, 26 (with map); Brayley and Britton, Beauties of Engl. and Wales, vi, 406; Murray's Guide to Herefs. (1884), p. xxxiii. 8 Watkin, Roman Lancs. 70; Roman Ches. 42.

Arch. Surv. 14.

<sup>&</sup>lt;sup>9</sup> Brit. Rom. 388. 10 See also Woolhope Club Trans. 1903, pp. 160, 186.

through South Herefordshire, but there are now no traces of a Roman road in these parts, and its course is practically unknown. We may assume that it ran from Monmouth past Whitchurch, Goodrich, and Walford, and that from Weston it followed approximately the line of the modern road from Ross to Gloucester by Lea and Huntly. It probably crossed the Wye at Walford, where is an ancient ford (in Domesday Walec ford, i.e. 'Welsh ford ').11

3. We may append here some details about roads which have been

traced, or thought to be Roman, on somewhat insufficient evidence.

(1) A road has been thought to have branched from Watling Street at Leintwardine, and to have run in a south-easterly direction past Blackwardine, where was a small settlement, to Ariconium.12 The only part of this route which in any way suggests a Roman road is through Ashton, Stockton Cross, Stretford, and Blackwardine, as far as Risbury Camp. The rest is pure The course proposed is by Bodenham, Preston Wynne, imagination. Withington, Lugwardine, Fownhope, and How Caple, but not a trace really Still less likely are the suggested roads from the above-named, (a) by England's Gate to Stretton Grandison, 18 (b) from Fownhope to Kenchester. 14

(2) A road has been thought to run from Kenchester past Bishopstone into Radnorshire—according to some, to the Roman remains at Cwm 15—but there is no evidence of it beyond Bishopstone. Codrington traces this road

by Staunton-on-Wye to Hay and Brecon. 16

(3) We have already noted the existence of a probable Roman road from Kenchester to Stretton Grandison, which at the present day coincides with a remarkably straight modern road to within a short distance of Yarkhill. It is stated that a milestone with illegible inscription is still lying in situ on this road near Withington. But that it was continued, as some writers have imagined,17 beyond Stretton over the Malvern Hills to Worcester, is entirely unproven.18 On the other hand there is better evidence for a road at right angles to the last named, leading in a very straight line for some seven miles to the south-east, through Ashperton, Pixley, and Preston, and thence more deviously to Dymock and Newent. In Isaac Taylor's map, published at Ross in 1754, the earliest on which roads are marked, this does not appear, but if really an old road, it may perhaps be Roman.19 Its general direction seems to indicate that it led eventually to Gloucester.

12 Woolhope Club Trans. 1885, p. 340; Arch. Cambr. (Ser. 2), v, 101; Journ. Brit. Arch. Assoc.

<sup>11</sup> Arch. Surv. 15; Codrington, Roman Roads in Britain, 363; Brayley and Britton, Beauties of Engl. and Wales, vi, 406; Murray's Guide to Herefs. (1884), p. xxxiv.

xxvii, 381. Arch. Surv. 15; Woolhope Club Trans. 1868, p. 185; Arch. Cambr. (Ser. 2), v, 102; (Ser. 5), v, 196; Journ. Brit. Arch. Assoc. xxvii, 381.

14 Arch. Surv. 15.

<sup>15</sup> See Arch. i, 304; xvii, 170; Giraldus Cambrensis, Itin. (ed. Hoare), i, p. clvi; Williams, Radnorshire, 48, 241.

16 Roman Roads in Britain, 365.

<sup>17</sup> E.g. Arch. Journ. xxxiv, 370; Journ. Brit. Arch. Assoc. xxvii, 381; Arch. Cambr. (Ser. 2), v, 101; (Ser. 5), v, 197; Duncumb, Hist. of Herefs. i, 29; Brayley and Britton, Beauties of Engl. and Wales, vi, 406. See V.C.H. Worcs. i, 213.

<sup>19</sup> Arch. Surv. 15; Arch. Cambr. (Ser. 5), v, 197; Woolhope Club Trans. 1903, p. 189; Codrington, Roman Roads, 364; Fosbroke, Ariconensia, 24.

#### SITES OF PERMANENT OCCUPATION

## (I) KENCHESTER (MAGNA)

About half a mile to the south-west of the village of Kenchester, four or five miles west of Hereford, is the site of a small Roman town, which the mileage of the Itinerary of Antonine permits to be identified with the 'Magni' or 'Magna' of the twelfth Îter. But the wholly unmilitary character of the place prevents the possibility of expanding the name into 'Magna Castra,' as has often been suggested.2

The site 3 is well defined, 200 yds. south-west of Credenhill station, and known as 'The Walls.' In shape it is an irregular hexagon, covering an area of about seventeen acres. It was surrounded by a stone wall with four gates, of which the foundations can still be traced; a part of the exposed wall could be seen as late as 1861, when the last remaining portion was thrown down, and the lines on the east side are said to be still visible, faced with stones set in herring-bone fashion in rubbly mortar. The extent of the town is indicated by a slight eminence, from 4 ft. to 6 ft. higher than the surrounding country. At the west end, in the garden of the Post Office, the high bank which marks the line of the walls has been partly uncovered, and some of the stonework is now visible. This is probably the part excavated by Mr. Hardwick (see below, p. 180). It is also stated that the course of the main street can be traced among the crops, and that the soil thereabouts is dark, fragments of coarse pottery abounding on the surface.4

The town, though small, had some pretensions to comfort and civilization, as shown by the remains found of tessellated pavements, hypocausts, drainage tiles, ornaments, glass, pottery, &c.; and it is the only important Romano-British site in the county, even then being far inferior to Wroxeter, Silchester, and other larger Roman sites. Close by it is the British camp at Credenhill, and it may have succeeded to a British oppidum there. Suburbs appear to have lain outside, and only a mile to the west is the villa at Bishopstone.<sup>5</sup> The principal street was 15 ft. wide, and ran from east to west; it is stated that in a dry season the lines of streets and houses can still be clearly perceived by the difference of growth in the crops.<sup>6</sup> The town itself represents more probably the Romanized Briton than the genuine Roman.<sup>7</sup> From the fact that the soil on the site is black, while that of the surrounding country is red.

<sup>&</sup>lt;sup>1</sup> The distances as given are 22 miles from Gobannium (Abergavenny), 20 from Bravinium (Leintwardine). See above, p. 172.

<sup>&</sup>lt;sup>2</sup> In the Itinerary, as in the Ravenna Geography, we have only the form Magnis, which may be from either nominative. The name reappears on Hadrian's Wall, at Carvoran, and is perhaps Celtic (connected, according to Sir J. Rhys, with maen, 'stone'). It may survive in 'Magonsetum,' the oldest recorded form (A.D. 811) of the name of the English tribe of Magesaet, who settled in Herefs. and plainly took their name from some place. See Haverfield, in Arch. Surv. 4, and Woolhope Club Trans. 1896, p. 223.

<sup>&</sup>lt;sup>3</sup> O.S. 6-in. xxxiii, NW.

Arch. Surv. 4; Arch. Journ. xxxiv, 353; Woolhope Club Trans. 1882, pp. 241, 244; 1896, p. 223; Murray's Guide to Herefs. (1884), p. 310; Hereford Times, 14 Oct. 1882; Arch. Cambr. (Ser. 2), v, 98; Duncumb-Cooke, Hist. of Herefs. iv, 111 ff. See also art. 'Earthworks,' 222.

<sup>&</sup>lt;sup>5</sup> See Topog. Index.

<sup>6</sup> Arch. Surv. 4; Arch. Journ. xxxiv, 353; Hereford Times, 14 Oct. 1882; Woolhope Club Trans. 1882, p. 244.

<sup>7</sup> Arch. Surv. 4.

and that considerable quantities of charred and molten substances have been found, it is concluded that the town was destroyed by fire. The stones of its buildings are said to have been used in the neighbouring villages and in Credenhill Church.8

The site of Kenchester or Magna has never been lost, though it has not always been recognized, and frequently confused with Ariconium. Leland, writing in the 16th century, was the first to speak of the place as Roman and he mentions the existence of ruined buildings, as well as coins and other relics :-

Kenchester standeth a iii myles or more above Hereford . . . This towne is far more auncyent then Herford, and was celebrated yn the Romaynes tyme, as appereth by many thinges, and especyally by antique mony of the Caesars, very often found withyn the towne, and yn plowghyng about; the which the people ther cawlleth Duarfes Mony. The cumpace of Kenchestre hath bene by estimation as much as Herford, excepting the castel . . . Peaces of the walles and turrets yet appere, prope fundamenta, and more should have appered if the people of Herford towne and other therabowt had not yn tymes paste pulled downe muche and pyked owt of the best for their buildinges. Of late one Mr. Brainton . . . dyd fetch much tayled stone there toward his buildinges . . . The place wher the town was ys al overgrowen with brambles, hasylles, and lyke shrubbes. Neverthelesse here and there yet appere ruines of buyldinges, of the which the folisch people cawlle on the King of Feyres Chayre. Ther hath been fownd nostra memoria lateres Britannici; et ex eisdem canales, aquaeductus, tessellata pavimenta, fragmentum catenulae aureae, calcar ex [auro] by side other strawng thinges. To be short, of the decaye of Kenchestre Herford rose and florishyd.

Further on he says: 'At Kenchester iii Myles fro Hereforth Westward a Myle fro the Bank of Wye . . . is found a fossoribus & aratoribus Romayn Mony, tessellata pavimenta . . . and ther they cawl them Dwery or Dwerfich, Halfpens or Mony.'9

In 1669 'was found here a great vault with a tessellated pavement and a stone floor,' and in the vault was a 'table of plaster.' 10 Aubrey in his MS. notes says (to quote Stukeley) 'anno 1670, old Roman buildings of brick were discovered underground, on which oaks grew: the bricks are of two sorts some equilaterally square, seven or eight inches, and one inch thick; some two foot square, and three inches thick' (i.e. tegulae bessales and bipedales).11 About the same time Sir John Hoskyns discovered what Stukeley describes as a bath, but was apparently a hypocaust, 'about seven foot square; the pipes of lead intire; those of brick were a foot long, three inches square let artificially one into another: over these I suppose is a pavement.' 12

In 1719 Roger Gale visited 'the ruins of Ariconium' and described the site in a letter to Samuel Gale, as oval, of 50 or 60 acres, with four gates or openings, two on the west, two on the north side. He mentions traces of the walls and a niche described by Camden, 'also a vault from which urns were taken with bones and tesserae,' and obtained coins of Caracalla and Severus Alexander from Colonel Dantsey. The coins were mostly found on

<sup>8</sup> Arch. Journ. xxxiv, 355; Hereford Times, 14 Oct. 1882; Woolhope Club Trans. 1882, p. 241.
9 Itin. (1744), v, 66; vii, 152; ed. Toulmin Smith (1906), p. 102.
10 Camden, Brit. (1695), 579; Price, Hist. Account of Heref. 11; Brayley and Britton, Beauties of Engl. and Wales, vi, 584; Morgan, Rom.-Brit. Mosaic Pavements, 73.
11 Stukeley, Itin. Cur. i, 69; Gough's Camden, ii, 74; Brayley and Britton, loc. cit.; Morgan,

<sup>12</sup> Itin. Cur. i, 69; Gough, Camden, ii, 74; Brayley and Britton, loc. cit.; Lewis, Topog. Dict.

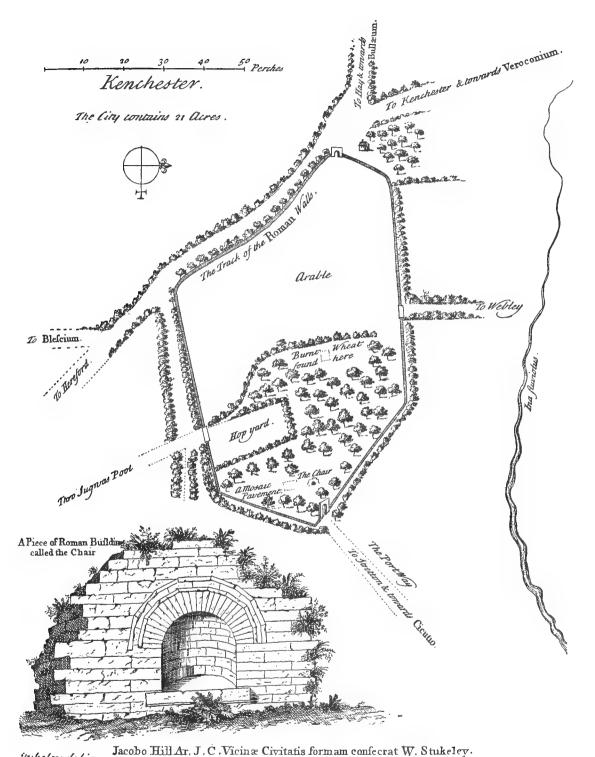


Fig. 1.—Stukeley's Plan of Kenchester, and Drawing of 'The Chair.'

the north side, which had two gates opening that way; two roads were visible here.13 He also mentions burnt wheat, showing the destruction of the town by fire, and describes a room at Hampton Court as paved with red Roman tiles six inches square brought from here; Stukeley also says: 'Colonel Dantsey has paved a cellar with square bricks dug up here: my lord Coningsby has judiciously adorned the floor of his evidence-room with them.' 14

Stukeley himself, writing in 1722, says :-

The city of Hereford probably sprung up from the ruins of the Roman Ariconium, now Kenchester, three miles off, higher up the Wye but not very near it; which may be a reason for its decay. Ariconium stands on a little brook called the Ine, which thence encompassing the walls of Hereford falls into the Wye, . . . Nothing remaining of its splendour, but a piece of a temple, probably with a niche, which is five foot high and three broad within 16 . . . There are many large foundations near it. A very fine mosaic floor a few years ago was found intire, soon torn to pieces by the ignorant vulgar. 16 I took up some remaining stones of different colours, and several bits of fine potters ware of red earth . . . In another place is a hollow where burnt wheat has been taken up: some time since Colonel Dantsey sent a little box full of it to the Antiquarian Society. All around the city you may easily trace the walls, some stones being left everywhere, though overgrown by hedges and timber trees. The ground of the city is higher than the level of the circumjacent country. There appears no sign of a fosse or ditch around it. The site of the place is a gentle eminence of a squarish form; the earth black and rich, overgrown with brambles, oak-trees, full of stones, foundations, and cavities where they have been digging. Many coins and the like have been found. Mr. Ja. Hill, J.C., has many coins found here, some of which he gave to the said society.

He gives a ground-plan of the town (see Fig. 1). This full description of the site and discoveries has been largely drawn upon by succeeding writers, from Gough onwards.

Gough in his 1789 edition of Camden largely repeats Stukeley's description, but with some additional details. He says that the town was an irregular hexagon, and describes the building seen by that writer as 'part of a temple, with a niche five feet high and three broad, built of Roman brick, rough stone, and indissoluble mortar, and called "the chair," round which are foundations and holes.' He adds that numbers of coins, bricks, leaden pipes, urns, and large bones have been dug up there.17 Price, writing in 1796, says 'There are visible to this day the ruins of some old walls called Kenchester Walls, about which there are often dug up stones of inlaid chequer work, British bricks, Roman coins and the like. The last of the earlier writers who need be quoted are Brayley and Britton, who say: 'Towards the east end is a massive fragment remaining of what is supposed to be a Roman temple. It consists of a large mass of cement, of almost indissoluble texture, in which are imbedded rough stones irregularly intermixed with others that have been squared. This fragment is called "the chair" from a niche which is yet perfect. The arch is principally constructed with Roman bricks, and

18 Price, loc. cit.

<sup>18</sup> Stukeley Diaries and Letters (Surtees Soc.), ii, 188; Reliquiae Galeanae, 120, 122; Morgan, op. cit. 73. 14 Itin. Cur. i, 70. Mr. J. S. Arkwright, M.P., the present owner of Hampton Court, states that to his knowledge this paving does not now exist.

<sup>15</sup> See Camden, quoted above. Stukeley gives an illustration on plate 85.
16 This seems to be the one 'of a fine pattern' mentioned as found about 1730 by Brayley and Britton; cf. Gough, op. cit. iii, 74; Morgan, op. cit. 73; Arch. Journ. xxxiv, 353.
17 Brit. (1789), ii, 449; see also 1806 ed. iii, 66, 74; Price, Hist. Account of Heref. 11; Morgan, Rom.-

Brit. Mosaic Pavements, 73.

over it are three layers of the same material exposed lengthwise.' They also mention an aqueduct or drain opened about 1785.19

Most of the older writers, as Camden, Gough, Stukeley, and Williams,<sup>20</sup> placed Ariconium here, and Magna in various other localities. Camden and Gale sought it at Old Radnor, Williams at Cwm in the same county; others at Ledbury, or Gaer near Brecon.<sup>21</sup> The first to identify Kenchester as the site of Magna was Horsley,<sup>22</sup> while Salmon maintained that it was Credenhill Camp.<sup>25</sup> Horsley showed that his view not only removed all difficulties as to distance, but that Magna was obviously on the line of the road through Kenchester. His views were, however, for some time stoutly contested.

The 'niche' or 'chair' at the east end of the site, mentioned by several of these writers, was still standing about 1814, but was afterwards destroyed. It consisted of a mass of rubble, stone, and brickwork, resembling part of the 'Jewry wall' at Leicester,<sup>24</sup> and forming an arch or vault (see Fig. 1). It was also known at one time as Becket's chair.<sup>25</sup>

Until the early part of the 19th century the ruins must have been considerable, but the site was then cleared for cultivation. Stukeley's plan shows that a large part of the area was arable at that time, and it is presumably the south-western section which was described about 1817 as being 'a complete wilderness of decaying walls and débris.' A view of the site as it was in 1852 is given by Thomas Wright. The Hereford Museum is said to contain a pavement found in 1821, but the date may be an error. 28

In 1840-2 Dean Merewether made a partial exploration of the site. A street was traced out by the remaining foundations of the walls on either side, which were from 1 ft. to 3 ft. below the surface, and were 2 ft. wide by 6 ft. deep. The base of a suite of rooms and passages, forming a house of some size, was laid bare. There were traces of decorations in red plaster on the walls, tessellated pavements, and a hypocaust. The pavements had mosaic patterns in red, blue, and white, one with scroll-patterns, measuring 13 ft. by 2 ft., being in fair preservation, and apparently forming a border (Fig. 5). Other pieces had devices of fish and sea-horses, but were imperfectly preserved.<sup>29</sup> Some of these are now in the museum at Hereford.<sup>30</sup> At the same time he found a very perfect quern, now also in the museum, and an oculist's stamp, now lost, which is described later on; also a fibula, bone pins, tesserae, and fragments of pottery.

Mr. Hardwick, writing in 1857, refers to the placing of the site under cultivation, and to the lines of streets and foundations being visible among the crops in a dry summer. He argues that the buildings of the main street,

Beauties of Engl. and Wales, vi, 584, with drawing of niche; cf. Arch. Journ. xxxiv, 353.

Hist. of Radnorshire, 43.

<sup>22</sup> Brit. Rom. 465; Duncumb, op. cit. i, 24; cf. Mannert, Geographie, ii, (Britannia), 140.

<sup>33</sup> New Surv. 699; cf. Gough, op. cit. iii, 73 and Williams, op. cit. 43.

<sup>&</sup>lt;sup>24</sup> V.C.H. Leics. 1, 186.

<sup>25</sup> For illustrations see Stukeley, op. cit. pl. 85; Brayley and Britton, loc. cit.; Woolhope Club Trans.

1882, pl. opp. p. 241; see also Wright, Wanderings of an Antiq., 39; Gent. Mag. xxxvii, (1852), 126; Arch.

Journ. xxxiv, 352; and for the legend connected with Becket, Woolhope Club Trans. 1882, p. 244.

<sup>16</sup> Arch. Journ. xiv, 83.

<sup>17</sup> Wanderings, pl. opp. p. 35.

<sup>28</sup> Antiq. xxvi, 245. Probably the Bishopstone pavement or Dean Merewether's (see below) is intended.
29 Woolhope Club Trans. 1882, p. 245; Arch. Journ. xxxiv, 354; Wright, Wanderings of an Antiq. 40;
Duncumb-Cooke, Hist. of Herefs. iv, 113; Gent. Mag. xxxvii (1852), 127.

<sup>&</sup>lt;sup>30</sup> Cf. Arch. Journ. xiv, 83, and Duncumb-Cooke, op. cit. 114, where it is inaccurately stated that the pavement was found in 1857.

which ran east and west, and was from 12 ft. to 15 ft. wide, with a gutter down the middle, were of timber, and claimed to have discovered the plinths in which the timbers were inserted: 'the plinths had been taken out, the holes being cut about four inches square; they measured two feet in each direction, and lay two feet below the surface.' 81 The exterior walls certainly remained to a much later date. Mr. Thompson Watkin saw a fragment in 1861, and described it as 61 ft. to 7 ft. thick, partly composed of large stones and partly of herring-bone masonry.82 He also states in 1877 that the sites of four gates, nearly at the cardinal points, were until recently plainly visible.33 In the western part of the site a later discovery is reported of seven large blocks of conglomerate stone, and five Doric capitals and bases (Fig. 4), with rough diaper ornamentation, which pointed to the existence of an important building. These stones were subsequently placed in the form of a rough foundation, at some distance from the site of their discovery, but four of the capitals are now at Credenhill.84

In August 1891 a well was discovered, and has been described by Dr. H. C. Moore, but although Roman tesserae were found in it, the well itself is not Roman, but mediaeval. The tesserae and some tiles are now in the Hereford Museum. The accidental contents of these receptacles cannot, it has been pointed out, be taken as a proof of their origin. There is even less probability that a Roman origin is to be ascribed to the masonry which has long existed at New Weir under the name of 'Roman Bridge.' Dr. Moore says there was no bridge here, either of stone or timber, and that the site of a bridge, if there ever was one, was more than half a mile lower down, at Huff Pool.86 The masonry above mentioned, however, was found on examination to contain numerous tiles of close-textured clays mostly with flanges, which were clearly Roman. They are now in the Hereford Museum. But it has been ascertained beyond doubt that the structure is really a landing-stage for barges, not of earlier date than the end of the 18th century. It can therefore have no bearing on the question of a Roman bridge here.87

The existence of a timber bridge half a mile lower down is testified to by the fact that it would here lie in the direct line of the old Roman road in Madley parish, called Stoney Street; 88 and there are still standing, 20 yds. above the boundary fence between the properties of Messrs. Jones and Lee of Canon Bridge and Sir Joseph Pulley of Lower Eaton (where the water at lowest summer level is 12 ft. deep), about fourteen piles in tolerably close array, extending to a distance of 15 ft. from the banks. Some of these piles are vertical, but generally in an oblique direction, 'of enormous scantling.' Two of them are estimated to be a foot square. A few yards further up the river are large timber baulks lying horizontally like steps. Further proof that these form the remains of a Roman bridge is furnished by the fact that

<sup>31</sup> Arch. Journ. xiv, 83; Woolhope Club Trans. 1882, p. 244.

<sup>38</sup> Arch. Journ. xxxiv, 353.

38 Arch. Journ. xxxiv, 353.

39 Arch. Journ. xxxiv, 353.

30 Arch. Journ. xxxiv, 353.

30 Arch. Journ. xxxiv, 353.

31 Ibid. 355.

32 Arch. Journ. xxxiv, 353.

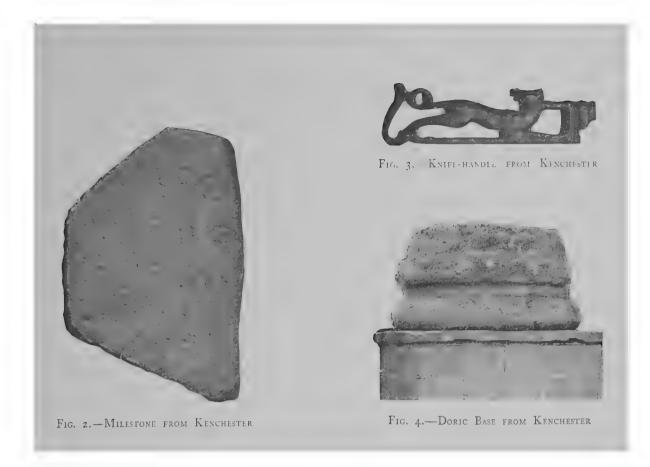
33 Ibid. 355.

34 Cf. Reade, Mem. of Old Heref. 58. They adorn the walls of two gardens in the village street. Strictly speaking, three of them are bases, not capitals. Mr. Charles Hardwick states that a few years ago he excavated the foundations of one of the old gateways and found some large blocks of sandstone, which were left in the discovery recorded above: but see above, p. 175. lying in situ (letter of 7 Feb. 1908). Possibly this is the discovery recorded above; but see above, p. 175.

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See Woolhope Club Trans. 1893, p. 56, for description and photograph of masonry.

88 It is so indicated, with the line of the road, on the O.S. 6-in. map, sheet xxxiii SW. See above, p. 173.



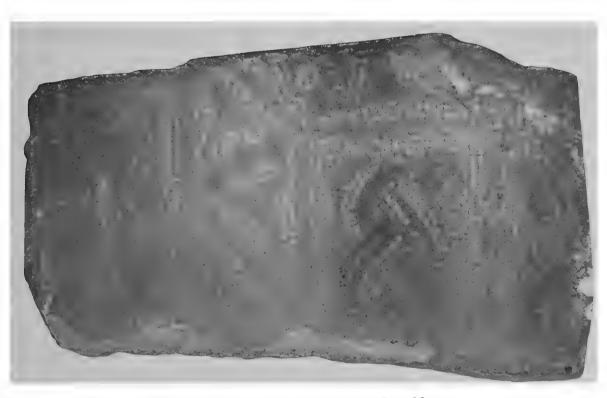


Fig. 5.—Pavement found at Kenchester by Dean Merewether

the Roman road has been traced from the opposite point on the further bank, which clearly points to some artificial connexion between the two sides of the river.<sup>59</sup>

Only two inscriptions have been found on the site, one the oculist's stamp already mentioned, the other a milliarium or milestone which can be dated A.D. 283 (Fig. 2). The latter was dug up in 1795-6 from the foundations of the north wall of the town, and seems to have been removed to a farm-yard at Old Weir, about a mile away, where it was seen by Lysons in 1800.<sup>40</sup> It is made of the coarse local sandstone, 2 ft. high by 1 ft. 6 in. wide, and 5 in. thick. The bottom was broken off, and the upper part damaged. In 1800 it was in the possession of the Rev. C. Bird, F.S.A., of Mordiford, and it was presented to the Hereford Museum by his successors in 1880. The inscription on the stone <sup>41</sup> runs:—

IMP · C Imp(eratore)C(aesare)

MAR AVR Mar(co) Aur(elio)

NVMORIAN Num(e)rian—

O o

R P C D

The first four lines can be plainly read, but the last line is not so clear. Lysons only mentions 'faint traces of letters, too indifferent to be ascertained.' Hübner suggests P F AVG, pio fideli Augusto.<sup>42</sup> The letters R P are also found in an inscription from Caermarthenshire standing for r(ei)p(ublicae),<sup>43</sup> and it has therefore been suggested that BONO has been obliterated from the fourth line, and that the fifth read originally NATO. This is supported by an inscription found at Wroxeter,<sup>44</sup> and now in the Shrewsbury Museum, which has

the inscription PUBLICAE . Professor Haverfield however suggests that in the

present case we should read RPCD, standing for Respublica civitatis Dobunorum.<sup>45</sup> This inscription is said to be the only one in Britain with the name of the Emperor Numerianus (A.D. 282-3), and it is very rare on the Continent.

The oculist's stamp is inscribed on the four sides as follows:—

- (I) T · VINDAC · ARIO VISTI ANICET
- (2) T · VINDACI · AR OVISŤ · NARD
- (3) · VINDAC · ARI
  OVISTI · CHORON
- T. Vindac(i) Ariovisti anicet(um)
- T. Vindaci Ar[iovisti nard(inum)
- T.] Vindaci Ariovisti chloron
- T. Vindac(i) Ario-



Fig. 6.—Oculist's Stamp found at Kenchester

<sup>39</sup> See Woolhope Club Trans. 1882, p. 248; 1893, p. 59, with photograph of the spot.

<sup>&</sup>lt;sup>40</sup> Lysons in Arch. xv, 391, pl. 27, fig. 2; see also Soc. Ant. MS. Min. May 1805, xxx, 425.
<sup>41</sup> Woolhope Club Trans. 1882, p. 247, with plate; Arch. Journ. xxxiv, 356, 399; xxxvii, 147; Wright, Wanderings of an Antiquary, p. 40, and Celt, Roman, and Saxon (6th ed.), 421; Antiq. xxvi, 245; Ephem. Epigr. 336, no. 1101; Lewis, Topog. Dict.; Duncumb-Cooke, Hist. of Herefs. iv, 113; Petrie and Sharpe, Monum.

Hist. Brit. i, p. cx, no. 27; Arch. Surv. 4; Academy, 1 Aug. 1896, p. 86.

42 Corp. Inscr. Lat. vii, 1165.

43 Arch. Journ. xxxi, 344.

44 V.C.H. Shrops. i, 247.

5 Arch. Surv. 4 n.

On the upper surface of the stone are the letters (reversed) senior; on the The name of the oculist Ariovistus does not occur elsewhere; it is thought to be of German origin. Nardinum and chloron are kinds of ointment or salve, the former spikenard, the latter of a pale greenish-yellow colour; anicetum appears to be merely a kind of 'puff' (Gk. ἀνίκητον='invincible' or 'incomparable'). For the last word in (4) calliblepharium was suggested by Grotefend, but it is doubtful if this can be accepted.46

When the site was first cultivated, a large number of Roman remains were turned up by the plough. Some of these have already been noted, and it is stated that in 1863 urns, pottery, and coins found here were exhibited at Kington by Mr. Williams of Rhayader. Mr. Hardwick formed a collection of coins and other objects, most of which are now in the Hereford Museum, to which other benefactions have been made by Mr. R. M. Whiting of Credenhill, Mr. W. Pilley, Mr. W. Bulmer, Mrs. Maybery, and Mrs. Cooper Key. Mr. Hardwick gave seventy-one coins, and Mr. Whiting forty-three.48

Mr. Hardwick's coins were mostly small ones of copper, and included specimens of Carausius (287-93), Allectus (294-6), and Constantine the Great (306-37), also four silver coins of Domitian, Nerva, and Trajan. They cover the period from Domitian (81) to Gratian (383), and the mints represented are London, Lyons, Treves, Arles, Siscia, and Constantinople. Mr. Whiting's coins date from Domitian (81) to Valens (378); Mr. Bulmer's from Diocletian to Constantius II. Mr. Pilley gave six silver coins, a denarius of C. Vibius Pansa, two of Trajan, and one each of Augustus, Antoninus Pius, and Philip (A.D. 244). Roach Smith describes some interesting coins of Carausius found some time before 1850: one with TEMPORVM F[ELICITAS], another a rare type, with Hercules on reverse holding olive branch and club, inscribed HERCYLI PACIFERO. 50 In the Johnson collection at Eigne, Hereford, were coins of Allectus, Constantine, Gallienus, Maximian, Postumus, Victorinus, and Helena.<sup>51</sup> A coin of Constantine II minted in London in 320 52 was found recently at the post office, 4 ft. below the surface, together with a

Other remains include a bronze key found about 1780; sand sundry small bronze objects: a horse's head, figures of a lion, stag, mouse, and cock, and a small hatchet, probably intended for toys or ornaments (Fig. 7). In

<sup>&</sup>quot;6 Corp. Inscr. Lat. vii, 1320; xiii, pt. 3, p. 595, no. 195; Espérandieu, Signac. medic. ocular. 120; Journ. Brit. Arch. Assoc. iv, 280; Arch. Journ. vii, 359; xxxiv, 356; Simpson, Arch. Essays, ii, 285, pl. 3, 10; id. in Monthly Journ. of Med. Science, xii (1851), p. 250, pl. 3, 10; Wright, Celt, Roman, and Saxon (6th ed.), 299; Woolhope Club Trans. 1882, p. 246, with plate; Bonner Jahrbücher, xx (1853), 176; Jahrbücher für Philol. 1858, p. 589; Philologus, xiii (1858), p. 163, no. 67; Grotefend, Stempel der Augenärzte, 121, no. 100; Révue archéol. xxii (1893), p. 25, no. 77. The reading given above is taken from an impression of the stamp made by Mr. W. Johnson, now in the possession of Mr. Walter Pilley.

Duncumb-Cooke, Hist. of Herefs. iv, 114.

<sup>48</sup> Woolhope Club Trans. 1896, pp. 108, 151, Appendix, p. 1. In the museum as many as 70 coins, all small copper, are marked as from Mr. Whiting.

<sup>40</sup> Ibid. 1882, p. 245; 1896, Appendix, p. 6 ff.

<sup>50</sup> Journ. Brit. Arch. Assoc. iv, 286; cf. Num. Chron. (Ser. 4), vii, 402 and 377, no. 901; Num. Journ. i, 264.

Duncumb-Cooke, op. cit. iv, 114. Stated to be now at South Kensington.

<sup>82</sup> Obv. : bust of Constantine and constantinvs IVN N C; rev. : altar surmounted by crown and votis xx. PLON.

Soc. Ant. MS. Min. xvii, 316, March 1781.

<sup>54</sup> Wright, Wanderings of an Antiquary, 38; Arch. Journ. xxxiv, 357; Gent. Mag. xxxvii (1852), 124. The stag is in the Hereford Museum.

Mr. Hardwick's collection were several bronze finger-rings, one with a glass paste intaglio in imitation of nicolo or onyx, one silver; several bronze fibulae (one of cross-bow type), a spur, and other fragments, and a knife-handle in the form of a greyhound (Fig. 3); specimens of glass, one thought to

have been used in a window; glass and jet beads, bone pins, &c.56 Besides these are mentioned scoriae of metal, molten lead, and burnt wood; stone querns in good condition, measuring 12 to 18 in. in diameter; pieces of Gaulish and other pottery; a stone walllamp of rhomboid shape; and a small stone coffin, measuring 4 ft. 6 in. in length, and 9 to 21 in. across; all exhibited by Miss Mary Walker in 1857.66 The Hereford Museum contains, besides the querns above mentioned, brooches and other small objects from Mr. Whiting and Mrs. Key, a fibula, pottery, and 'a Roman brick from the Wye,' all from this site.<sup>17</sup> The pottery in the



FIG. 7 .- BRONZE FIGURES, KENCHESTER

museum includes fragments of Gaulish ware from Lezoux with figures, one fragment stamped ADV[OCISI], another [DO]IICCI. There are also fragments of 1st-century Gaulish ware, one with the stamp ERVS, miscellaneous plain pottery, and lamps, bequeathed by Prebendary Webb (Fig. 10). In private possession at Hereford are silver coins of Geta and Constantine and numerous copper coins, a glass paste engraved with a head of a bald bearded man, a gem engraved with a Lar, and a bronze ring engraved with a bird or griffin. Mr. H. T. Timmins of Birmingham has a gold ring from this site, and Mrs. Glinn of Hereford a fibula, two beads, and a clay lamp formerly in the possession of Mr. W. Johnson. In the parish church of Kenchester a portion of a Roman column, hollowed out, still serves as the font. For the Roman altar probably from this site, see Topographical Index, s.v. Hereford.

# (2) LEINTWARDINE (BRAVINIUM)

This village lies on the line of the road commonly known as Watling Street, leading from Wroxeter to Caerleon. In its centre, just to the west of Watling Street, may be traced the outline of a rectangular camp (see

1 V.C.H. Wore. i, 204; see above, p. 172.

of Wright, op. cit. 37; Celt, Roman, and Saxon (6th ed.), 410; Journ. Brit. Arch. Assoc. iv, 285, with plate; Arch. Journ. loc. cit. The knife-handle is in the Hereford Museum, with other less important objects.

6 Arch. Journ. xiv, 83.

<sup>57</sup> See generally on finds from this site, Woolhope Club Trans. 1882, pp. 245, 248; Wright, Wanderings, 38; Duncumb-Cooke, Hist. of Herefs. iv, 113; Antiq. xxvi, 246; Murray's Guide to Heref. (1884), 310.
68 Woolhope Club Trans. 1882, p. 248; Murray's Guide, 310; cf. the fonts at Wroxeter, Salop, and Market Overton, Rutland.

accompanying plan, Fig. 11) inclosing a space of fourteen acres surrounded by a fosse, with entrances on the east side (towards the road) and at the southwest corner (towards the river).

This earthwork, forming as it has the subject of much discussion, cannot be lightly dismissed, as it involves the position of the Roman station of Bravinium, or Brannogenium, which Ptolemy 'gives as one of the two towns of the Ordovices. In the twelfth Iter of Antoninus Bravinium or Bravonium is mentioned as situated 24 miles from Magna and 27 from Viroconium, and moreover it must have been on the Watling Street. Until quite recently Brandon Camp, 2 miles to the south of Leintwardine, seems to have been accepted as the Roman Bravinium, owing to the apparent absence of remains elsewhere in this district. This view was accepted by Hartshorne, by James Davies, and by antiquaries of a previous generation, such as Aubrey, Britton, and Camden. But the site at Leintwardine is much more suitable because (1) it exactly fits the distances in the Itinerary; (2) it is situated on the Roman road; (3) it is essential to have a Roman station at this point to confirm the Itinerary; (4) Roman remains have been found here, which is not the case at Brandon Camp; (5) Brandon Camp is considerably farther from the Roman road than Leintwardine; (6) the Leintwardine site is much better protected (a) on the west and south sides by the Rivers Clun and Teme, (b) by the range of hills from Mock Tree Hill to Totteredge Hill, while the site of Brandon Camp is considerably exposed; (7) Leintwardine is at a considerably lower elevation than Brandon; (8) Brandon Camp is surrounded by tumuli or barrows of British origin, which points to that camp being the work of an earlier age.

The site has also been variously fixed by Horsley at Ludlow, by Gale 6 at 'Rusberry' (Rushbury), between Wenlock and Church Stretton; by Williams at Blackwardine near Leominster (see Stoke Prior); by Mannert at Bromfield near Ludlow.7 Watkin, however, quotes Pointer as saying: 'In Dindar parish near Hereford is a camp called Oyster Hill; another at Leintwardine between this country and Shropshire; another at Ledbury,' and points out that he was the first to indicate the true solution.8 This view is further supported by Longueville Jones in his map of Britannia Secunda, by Thomas Wright and by Mr. Banks. Wright states that Bravinium was probably situated in the immediate neighbourhood of Ludlow, perhaps at or near Leintwardine, but, he adds, 'the last traces of Bravinium have long since disappeared.' Banks satisfied himself by personal inspection that the site was here. There seems therefore to remain little opening for hesitation in identifying Leintwardine with Bravinium, and if more evidence is needed, it is amply supplied by existing remains.10

The village of Leintwardine is situated on the northern bank of the River Teme at its junction with the Clun, and occupies rising ground. The

<sup>&</sup>lt;sup>2</sup> Geog. ii, 3, 99 (Didot). 3 Salopia Antiqua, 58. 4 Arch. Cambr. (Ser. 2), v, 100; cf. iv, 320. <sup>5</sup> Brayley and Britton, Beauties of Engl. and Wales, vi, 551; Camden, Brit. (ed. Gough, 1806), iii, 78; Duncumb, Hist. of Herefs. i, 27; R. H. Clive, Papers Relating to Hist. of Ludlow, 82, 85; Roy, Military Antiquities, 172; Hartshorne, Salopia Antiqua, 133. Itin. Ant. Brit. 127.

Horsley, Brit. Rom. 466; Williams, Hist. of Radnorshire, 49; Mannert, Geographie, ii (Britannia), 140.

<sup>8</sup> Arch. Journ. xxxiv, 350; Pointer, Brit. Rom. (1724), p. 54.
9 Wright, Wanderings of an Antiquary, 3; Arch. Cambr. (Ser. 4), v, 164.
10 See generally Woolhope Club Trans. 1882, p. 251; Arch. Journ. xxxiv, 349; Arch. Survey, 4.

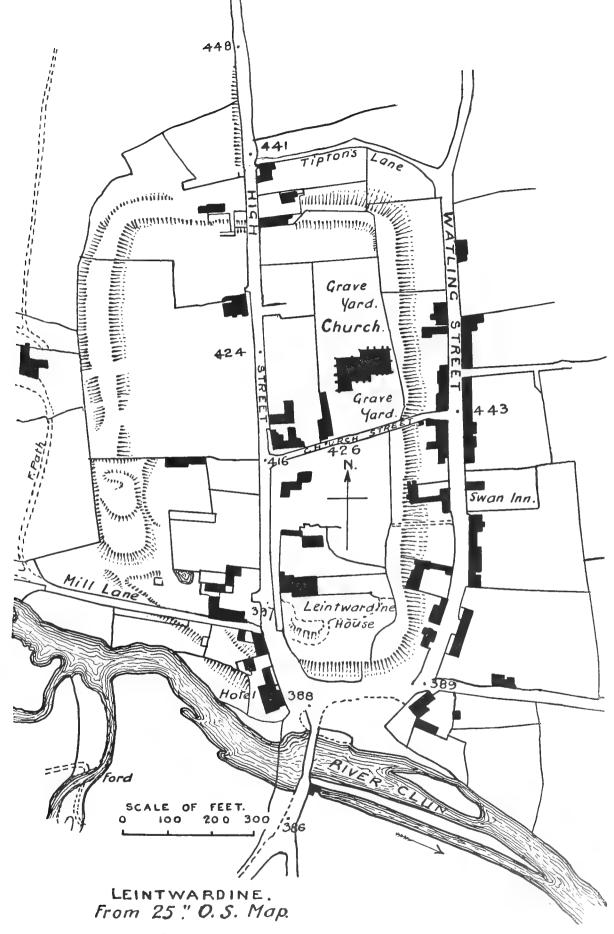


Fig. 11.—Sketch-plan of Leintwardine (Bravinium) 185

high road, 'High Street,' passes through the centre of the village, rising 56 ft. with a gradual ascent. A second road, the Roman road, formerly known as East Street, now known as Watling Street, runs parallel with the first, and the two are joined in the middle of the village by Church Street, the level of which is somewhat higher than the other two. The entrenchments of the camp can still be traced except on the south side, and it will be observed that Watling Street lies outside them. They are 20 yds. broad at their greatest breadth, and are still 8 ft. or 9 ft. above the surrounding ground. They form a parallelogram 308 yds. long from north to south and 220 yds. from east to west, covering an area of 14 acres inclusive of the embank-The breadth of the vallum is best seen in an orchard at the northwest corner; it is distinct along the west side, and across the north end, and all down the east side. A wall known as 'Ditch Wall' runs the length of The southern embankment is more difficult to trace, the old churchyard. and according to Dr. Bull ran obliquely along the river front, at about an angle of 100 deg. to the western side; but the plan in the article 'Earthworks' gives a dotted line parallel to the northern entrenchment. entrances may still be clearly traced, one entering obliquely through the western embankment just above its lower end, the other directly through the east side below Church Street. Throughout almost the whole extent the fosse still forms the demarcation of properties.11

At a depth of 4 ft. to 5 ft. below the surface there has been frequently found a stratum of ashes and burnt materials, and from 1 ft. to 18 in. below this a second stratum of ashes and charcoal. Graves dug in the churchyard to a depth of 8 ft. have yielded tiles, pottery, coins, and bronze articles mixed with ashes and charcoal. Together with the charred wheat, of which much has been found, this points to the destruction of the Roman town by fire, as was evidently the case with Magna and Ariconium. In this case, however, it was again occupied at an early date.

The remains discovered are insignificant, and point to the comparative unimportance of Bravinium. They include parts of a stone quern and of an earthenware pounding mill with lip' (? mortarium), fragments of Roman pottery, and roof tiles, a bronze ring, and a 'third brass' of Constantine, mostly on the eastern side, but the tiles are from the south-west. Pottery and coins have been found in the churchyard. Traces of oak timbers, blackened with age and deposit, were found near the old bridge on Watling Street. In a tumulus to the north-east of the church were traces of a cremation burial, but this seems more likely to have been British than Roman.<sup>13</sup>

At Walford in this parish an urn was discovered in February 1736 in one of the tumuli on the right-hand side of the road leading to Brampton Bryan; it is described as Roman, of yellow ware, with beading round middle part and base, the height being 18 in. It was broken in the hope that it contained money, but only human bones mixed with earth were found. It seems, however, to be indicated as a pre-Roman burial by Professor Haverfield.

Woolhope Club Trans. 1882, p. 252 (by Dr. Bull), with plan; Arch. Journ. xxxiv, 350; Arch. Cambr. (Ser. 4), v, 163. See also art. 'Earthworks,' 223, where it is pointed out that subsequent destruction has made it difficult to follow Dr. Bull's description of the entrenchments.

<sup>19</sup> Woolhope Club Trans. 1882, p. 253; Arch. Cambr. (Ser. 4), v, 163.

<sup>13</sup> Roy, Military Antiquities, pl. 40; Arch. Cambr. (Ser. 4), v, 164.

At Letton 'in the parish of Lanterdin' a gold coin of Tiberius was found about 1789,16 weighing 4 dwt. and in good preservation: obv. head of Tiberius and TI. CAESAR AVG. F. AVG. DIVI; rev. a seated figure with lance and laurel branch, and PONTIF. MAXIM. Letton is a hamlet in Leintwardine parish, about 3 miles south of the village.

# (3) Weston under Penyard (Ariconium)

About half a mile from the village of Weston under Penyard is the site of the Roman station of Ariconium, now marked by the estate of Bolitree.1 Second only in importance to Magna in this district, it is mentioned in the thirteenth Iter of Antonine, where it is said to be 15 miles from Glevum (Gloucester), and 11 from Blestium (Monmouth).2 Its very site was unknown at the beginning of the 18th century, and the earlier antiquaries, such as Camden and Stukeley, placed it at Kenchester, others at Hereford.8 The credit of discovering the true site is due to Horsley, and it is now generally allowed to have been situated on Bury Hill near Bolitree, about 3 miles east of Ross, and I mile north of the road thence to Gloucester. Wright speaks of it as 'the centre of several great roads; approached from Glevum by a road which seems to have run almost in the same line as the present road from that city to Ross, the road to Monmouth was probably carried through the valley, or passed to the south of Penyard, or crossed the Wye below Goodrich Castle.' 5 The survival of the name Ariconium in the modern Archenfield, an ecclesiastical division of South Herefordshire, is a point of interest.6

Fosbroke further defines the site as in a field east of the 'Wynchfurlong' towards Bromesash. He considers that the part already explored was merely the site of a manufactory (see below) by the dip of the ground at the Cindries, and that it was probably situated at the lower 'Praetorian' end of the station, where was what is described as a workshop for armour.7 The site is a notable example of the skill with which the Romans chose their positions. Though it is situated at no greater height than 350 ft. to 400 ft. above sea level, the prospect is extraordinary, embracing as it does not only the hills of Penyard, but the more distant heights of the Forest of Dean, and the rich plains of central Gloucestershire.8

The slope towards Weston on the west is called 'Cinder Hill,' and the surface has only to be turned up to show that it consists of an immense mass of scoriae. Ariconium has in fact been described as the Merthyr Tydvil of the Romans, possessing extensive smelting furnaces and forges, and being thus

<sup>15</sup> Arch. Surv. Index, with a reference to Gent. Mag. 1789, p. 740, which is not correct. <sup>1</sup> O.S. 25-in. lii, 6. See above, p. 173.

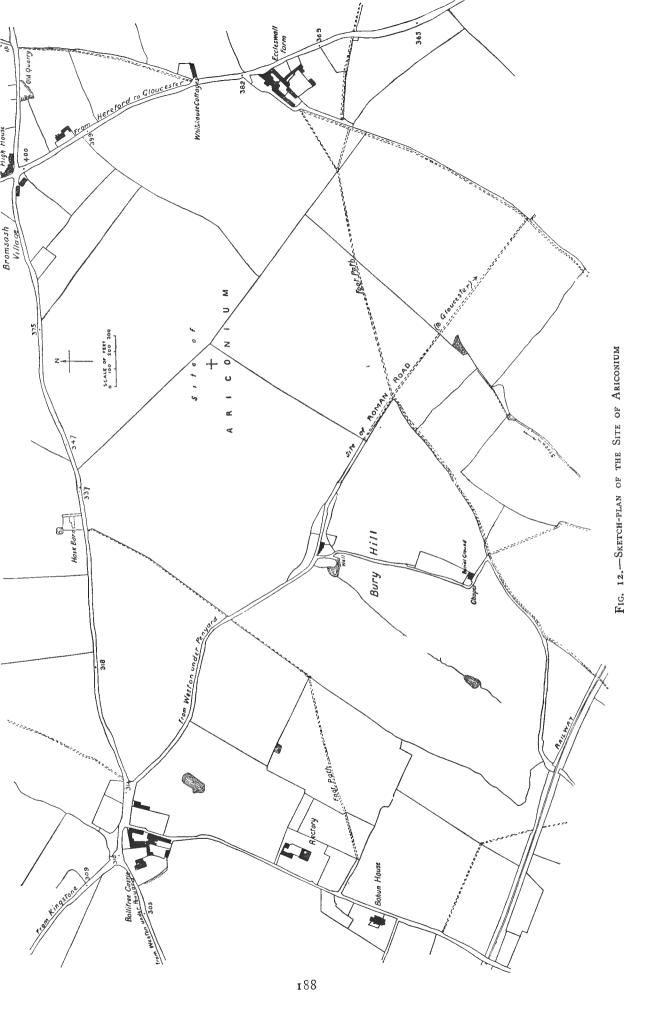
<sup>3</sup> Camden, Brit. (1600), 552; Stukeley, Itin. Cur. i, 69; Price, Hist. Account of Heref. 10; and see

above, p. 179.

4 Horsley, Brit. Rom. 468; cf. Duncumb-Cooke, Hist. of Herefs. i, 26; iii, 215; Fosbroke, Ariconensia (Ross, 1821), p. 22.

<sup>&</sup>lt;sup>5</sup> Wanderings of an Antiquary, 27. <sup>6</sup> Haverfield in Heref. Times, 7 Nov. 1896; Arch. Surv. 5; Woolhope Club Trans. 1896, p. 223; Arch. Cambr. (Ser. 2), v, 99; Fosbroke, op. cit. 34. 'Finis Arcenfelde' is given in Domesday as a division of the county, comprising several places near Ross (but not Weston); these are now included in Greytree Hundred, while the modern Deanery of Archenfield embraces the district about Dore and Pontrilas.

<sup>&</sup>lt;sup>7</sup> Op. cit. 31, 37. 8 Wright, Wanderings, 26.



one of the principal centres of the great industry which extended over the neighbourhood and the adjacent Forest of Dean.9

The area of the town occupies three or four fields, which in the middle of the 18th century were covered with extensive thickets concealing the broken walls and rubbish. Apart from the frequent discovery of scoriae, 'hand-blomeries,' and 'floors,' the site is marked by the appearance of the soil, which is black, contrasting strongly with the red soil of the country round. No discoveries have been recorded before the middle of the 18th century, and ineffectual searches had been made at Walford and elsewhere, until the true site was accidentally discovered by Mr. Merrick, who found numerous coins (spoken of by the country people as 'fairy coins') and bronze objects, which he disposed of eventually for £15.10

Finally, Mr. Merrick, being the proprietor of the estate, determined to take it in hand and clear the ground, and in 1785 a deep cavity was discovered in ploughing. Portions of the walls were then standing, and on an excavation being made to a depth of four or five feet, a floor was exposed, on which was laid a quantity of blackened wheat. Another floor is described as 'of sand.' According to Britton and Brayley there was found 'an immense quantity of Roman coins, and some British. Among the antiquities were fibulae, lares, lachrymatories, lamps, rings, and fragments of tessellated pavements. Some pillars were also discovered with stones having holes for the jambs of the doors, and a vault or two in which was earth of a black colour and in a cinerous state. . . . Innumerable pieces of grey and red pottery lie scattered over the whole tract (1805), some of them of patterns by no means inelegant. . . . Some of the large stones, which appear to have been used in building, display strong marks of fire.' In 1804 'several skeletons were discovered; and also the remains of a stone wall, apparently the front of a building, the stones well worked and of considerable size.' The coins were chiefly of the Lower Empire, but extended from Claudius (A.D. 41) to Constantius (A.D. 340). Cooke also mentions foundations of a building 27 ft. by 16 ft., urns, statues, bronzes, earrings, fibulae, pins, nails, keys, and other objects, and Fosbroke a large bronze head with rams' horns, as found by Merrick.11

A bronze statuette of Diana was exhibited to the Society of Antiquaries in 1788,19 but was subsequently lost; glass beads, cornelian and crystal intaglios, fragments of pottery, &c., are also recorded.<sup>13</sup> Neither those above mentioned nor any other small finds appear to be of special importance. It is significant that no pavements have been discovered, a further proof of the theory advanced by Fosbroke that excavations so far have not reached

Herefs. 1884, p. 256.

11 Brayley and Britton, loc. cit.; Fosbroke, op. cit. 36; Duncumb-Cooke, Hist. of Heref. i, 28; iii, 215; Wright, Wanderings, 25; Woolhope Club Trans. 1882, p. 250; Arch. Journ. xxxiv, 358; Arch.

19 Arch. ix, 368; Soc. Ant. MS. Min. xxii, 394, 8 May 1788. An engraving of this, dated 1843, is in the possession of Mr. Pilley; the figure is about five inches high, of the usual type, apparently represented as

18 Some of the writers referred to in the previous note appear to have confused the earlier finds with those described in 1870 (see below).

<sup>&</sup>lt;sup>9</sup> Wright, Wanderings, 27; Fosbroke, op. cit. 21; Nicholls, Ironmaking in the Olden Times, 9; Arch. Cambr. (Ser. 2), iv, 321; Duncumb-Cooke, op. cit. iii, 217; Brayley and Britton, Beauties of Engl. and Wales, vi, 514; Woolhope Club Trans. 1882, p. 249; see above, p. 171.

10 Wright, op. cit. 25; Fosbroke, op. cit. 36; Duncumb-Cooke, op. cit. iii, 215; Murray's Guide to

the site of the actual inhabited town.14 There has been no effort made to preserve any record of discoveries, except for a description of coins and other objects by Mr. M. C. Palmer, who exhibited them to the British Archaeological Association on their visit in 1870.16 The coins described by him include nine British, two being copper coins of Cunobelin. There were also 118 silver, billon, and copper Roman coins, ranging from Claudius (A.D. 41) to Magnentius (A.D. 353), also a silver consular coin of the Cordia family,16 but none seem to be particularly rare. There were also exhibited four intagli

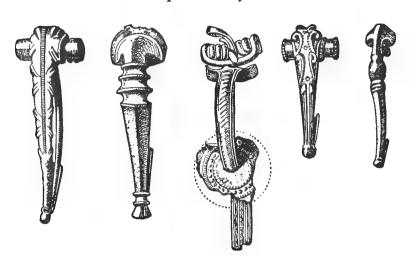


FIG. 13.—FIBULAE FROM ARICONIUM

(two cornelian), glass beads, a silver ring, twenty bronze fibulae (see Fig. 13), rings, keys, pins, nails, buckles, and other bronze implements.17

Dr. Bull, writing in 1882, says: 'The site at the present time presents a blackened soil extending over an area of nearly one hundred acres.

cultivated as arable land, and still yields Roman remains to every visitor who will look for them.' 18 The sole trace of the town which can now be seen is a fairly steep bank under which the wall is said to be. There is also a certain length of the Roman road running past the site. But beyond this, the black soil, and the coins which are continually picked up by casual passers-by, there is absolutely nothing to assist in the identification of the Roman city, nor are there any relics from this site in the local museums. Ariconium is a conspicuous example of the utter inadequacy of the investigations into Roman sites hitherto carried on in Herefordshire.

#### TOPOGRAPHICAL INDEX

ABBEY DORE.—A section of the Roman road (Stoney Street) opened in 1893; see above, 'Roads,' p. 173.

ASTON INGHAM.—In Combe Wood was discovered, in 1855, a hoard of coins, deposited in two chests ready for transport. They were said to number many thousands, all small bronze coins, covering the period A.D. 235-340. The emperors represented include Maximinus Daza, (A.D. 235-8); Maximianus (A.D. 286-310); Constantine the Great and his wife Fausta (A.D. 306-37); Licinius (A.D. 307-24); Crispus (A.D. 317-26); and Constantine II (A.D. 317-40). [Arch. Surv. Index; Woolhope Club Trans. 1882, p. 258; Arch. Journ. xxxiv,

<sup>14</sup> Ariconensia, 37. Mr. H. Southall writes, however, that about sixty years ago a tessellated pavement was found by a local landowner, who destroyed it lest he should be 'pestered by antiquarian visitors'!

<sup>15</sup> Journ. Brit. Arch. Assoc. xxvii, 203 ff.

<sup>16</sup> Cf. Cohen, Monnaies, pl. 14, 1.

Tourn. Brit. Arch. Assoc. xxvii, 210, with plate (coins fully described); Num. Chron. xi (1871), 155; Woolhope Club Trans. (1882), 250; Arch. Journ. xxxiv, 360.

18 Woolhope Club Trans. loc. cit.



Fig. 8.— Bronze Statuette from Bishop's Frome



Fig. 9.—Altar from Hereford



Fig. 10.—Gaulish Pottery from Kenchester in the Hereford Museum

#### ROMANO-BRITISH HEREFORDSHIRE

365]. Thirty-seven of these are now in the Gloucester Museum. Cooke also mentions a coin of Constantius from this find, minted at London and inscribed BEAT. TRANQVILITAS, on rev. an altar with votis and P. Lon [Hist. of Herefs. iii, 217].

BISHOP'S FROME.—A small bronze statuette of Jupiter found 4 ft. below the surface is now in the

Winnington Ingram Collection in the museum at Worcester (fig. 8).

BISHOPSTONE.—The site of a Roman villa was discovered in the rectory grounds in 1812, in the middle of a ploughed field above the valley, during excavations for the foundations of the rectory. A tessellated pavement was exposed 16 in. below the surface, 30 ft. square, stated to be 'of elegant and graceful design, the colours as bright as when they were laid.' The tesserae were laid in thin cement on a bed of clay, and the design appears to have been a geometrical pattern. At a distance of one to two hundred yards on every side of the rectory Roman bricks, coarse and fine pottery, and fragments of 'cinerary' urns were discovered at different times, also three coins. In 1821 south-west of the house, foundations of sandstone came to light about 3 ft. from the surface at the east end, deepening at the west to about 5 ft.; the foundations were about 3 ft. wide, increasing to 5 ft. at the angle where they turned. A total length of 55 ft. could be traced, parallel with the sides of the pavements, but no part of the walls remained standing. On the east side of the house were the foundations of a 20-in wall, strongly cemented. Quantities of black earth were also discovered near the places where the fragments of urns came to light, and bones at a depth of about eighteen inches. The site is on the road from Kenchester about a mile and a half from the supposed site of Magna. [Arch. xxiii, 417; Woolhope Club Trans. 1882, p. 257; Arch. Journ. xxxiv, 361; Arch. Surv. Index; Heref. Times, 28 Oct. 1882; Duncumb-Cooke, Hist. of Herefs. iv, 6; Soc. Antiq. MS. Min. xxxvi, 54; O.S. Hereford, 25-in. xxxii, 8. A drawing of the pavement was made for the Society of Antiquaries, and a plan of it was published in 1836 by Friedel of 15 Southampton Street, Strand, London, which is reproduced in fig. 14 from a copy in the possession of Mr. Pilley. Part of the pavement is now in the Hereford Museum [Antiq. xxvi, 246], having been presented by Mrs. Jenkins of Holmer in 1895. It is referred to by Wordsworth in one of his sonnets, written in 1837 [Poems (Globe ed.), 744].

BISHOPSWOOD. - See WALFORD.

BLACKWARDINE.—See STOKE PRIOR.

BOLITREE. - See above, p. 187.

Brampton Bryan.—In 1854 a number of Roman coins were found on this estate, and in a field higher up the valley towards Coxall Knoll, fragments of pottery have come to light. [Arch. Journ. xxxiv, 366; Woolhope Club Trans. 1882, p. 254; Arch. Cambr. (Ser. 4), v, 164; Arch. Surv. Index]. See also under Leintwardine, p. 186.

Brandon.—(Camp). See under Leintwardine, p. 184.

Brinsop.—Traces of a Roman well were discovered in 1887 by the subsidence of soil in a field belonging to the 'Eleven Acres' farm. The discoverer, the Rev. W. Elliot, thought it characteristic of a later date, but Professor Haverfield asserts its Roman origin. The ground had sunk for 2 ft. in an irregular circle 8 ft. in diameter, and the subsidence was sufficiently uniform in character to leave the sides of the cavity clearly cut. In excavating it was found that they were regularly 'steened' with undressed stone put together without mortar, but skilfully and strongly built. At a depth of from 10 ft. to 15 ft. pottery and animals' bones were found. For 16 ft. lower the space was filled with several tons of rough blocks of stone such as might have been used for building, also mixed with bones. Below were two or three feet of clay, and finally very wet sand. At 36 ft. the work had to cease owing to the encroachment of water. The diameter of the well varied in size: at the mouth it was from 2 ft. 4 in. to 2 ft. 6 in.; at 14 ft. it increased to 3 ft. 6 in., and then decreased rapidly to about 2 ft. 6 in. At a depth of 30 ft. was a triangular recess in the west wall of the well, about 6 ft. high; here were found bones of animals and considerable quantities of fragments of pottery, one of highly-glazed red ware, also the foot of a jar of ordinary red ware, parts of two 'cinerary' urns, and fragments of jars of so-called Upchurch ware. There were also found parts of two stone querns, and three rude clay amphorae. These remains are now in the Hereford Museum. The well appears to have been used as a rubbish-pit [Woolhope Club Trans. 1887, p. 127 ff, with plate; Antiq. xxvi, 245; Arch. Surv. Index].

Bury Hill .- See Weston-under-Penyard, p. 187.

CAPLER CAMP.—See FOWNHOPE.

Clehonger and elsewhere,' given by Mrs. Jenkins of Holmer in 1895.

COXALL KNOLL.—See p. 168.

CREDENHILL.—Roman remains have been frequently found in the village, which is close to the site of Magna (see p. 175), and in the cutting of the Hereford and Brecon Railway quantities of

coins, pottery, and other articles have been found. The Roman road to Magna was cut through here transversely about two feet below the surface [Woolhope Club Trans. 1882, p. 257; Hereford Times, 17 Aug. 1867]. See also under KENCHESTER, p. 180.

The camp here is British and there is no evidence that it was occupied by the Romans, as sometimes stated [Arch. Journ. xxxiv, 366; Woolhope Club Trans. 1882, p. 237, with

plan].

DINEDOR.—Coins of Galba and Vitellius (A.D. 68-9) found in the Camp here are said to be now in

the possession of Mr. Bodenham of Rotherwas [Information from Mr. Pilley].

Donnington.—Remains of masonry have been found here, apparently forming a well with domed top; within it were tiles and pottery, which Professor Windle pronounced 'clearly Roman.' One vase is described as 'of fine pottery in pale terra-cotta brown (Samian),' another as 'in the shape of a flower-pot in dark red pottery, one inch thick' with incised markings.

EASTNOR.—In 1876 some curious pieces of stone piping were discovered near the castle, made of Oolite bored through the centre and socketed into one another; they were evidently waterpipes, and were in 1882 in the possession of Mr. G. H. Piper. The nearest Oolite available is at Bredon Hill, twelve miles distant [Woolhope Club Trans. 1882, p. 256]. No evidence is given that these objects are Roman.

EATON BISHOP.—Two Roman lamps and an urn found here are now in the Hereford Museum

[Arch. Surv. Index].

FOWNHOPE.—A coin of the Empress Lucilla (A.D. 161) found in Capler Camp is described as 'a fine specimen of a sestertius or Roman first brass': obv.: bust of Lucilla; rev.: priestess offering olive-wreaths at altar, with SC; legend almost obliterated. It is now in the Hereford Museum [Woolhope Club Trans. 1883, p. 45; 1896, App. 1; Arch. Surv., Index]. The camp, though quite near to Fownhope village, is actually in the parish of Woolhope; but the coin may have been found in Fownhope parish.

Frome, Bishop's.—See Bishop's Frome.

GANAREW.—Mrs. Bagnall-Oakeley, writing in 1895, stated that 'Roman coins and swords were discovered some years ago' at the camp on the Little Doward in this parish [Bristol and Glouc.

Arch. Soc. Trans. xix, 401; but cf. Woolhope Club Trans. 1885, p. 213].

Goodrich.—At Copped Wood Hill a large collection of 4th-century coins was dug up about 1817 [Arch. Surv. Index; Woolhope Club Trans. 1882, p. 258; Arch. Journ. xxxiv, 365; Wright, Wanderings of an Antiq. 14]. Iron scoriae appear in great quantities about Whitchurch and Goodrich strewn over the surface of the fields and also lying in a thick and apparently deep layer very little below the surface in many places. They extend on both sides of the road

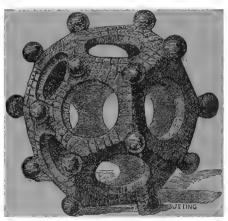


Fig. 15.—Bronze Dodecahedron found at Goodrich

as far as Weir End in Bridstow parish, where they are found in abundance near the river, and in other parts of the parish [Wright, loc. cit.]. It is said that these beds of cinders can be traced for miles round Goodrich Castle [Arch. Journ. xxxiv, 364].

A hollow bronze dodecahedron in perfect condition, 1% in. high and 18 in. thick, was found on Coppen Hill in 1877-8; each facet pierced with a circular opening 9 in. across, and each angle furnished with a small round knob. The workmanship is rude [Arch. Journ. xxxiv, 364; xxxv, 87, fig. 1]. There are similar objects in the British Museum and in the library of the Society of Antiquaries, and the former was exhibited in 1877 to the Archaeological Institute by Sir A. W. Franks. A dozen others have been found in Germany and Switzerland. They were probably used, as Mr. A. H. Smith has suggested, as 'gauge-keys' for measuring metal rods [See Conze in

Westdeutsche Zeitschrift, xi, pt. 3, p. 204; St. Venant, Dodecaedres perles (he thinks that they were used in games of skill or chance); Jahrbuch des deutsches arch. Inst., Anzeiger, 1891,

p. 183; 1892, p. 25].

HEREFORD.—There are no indications that this city was ever the site of Roman occupation. The supposed Roman road from Kenchester to Stretton Grandison passes a mile or two north of it, and practically the only objects found in the city must have come from Kenchester. A probable though unimportant exception is a Roman copper coin found in the masonry of the city wall [fourn. Brit. Arch. Assoc. xxxvii, 183].

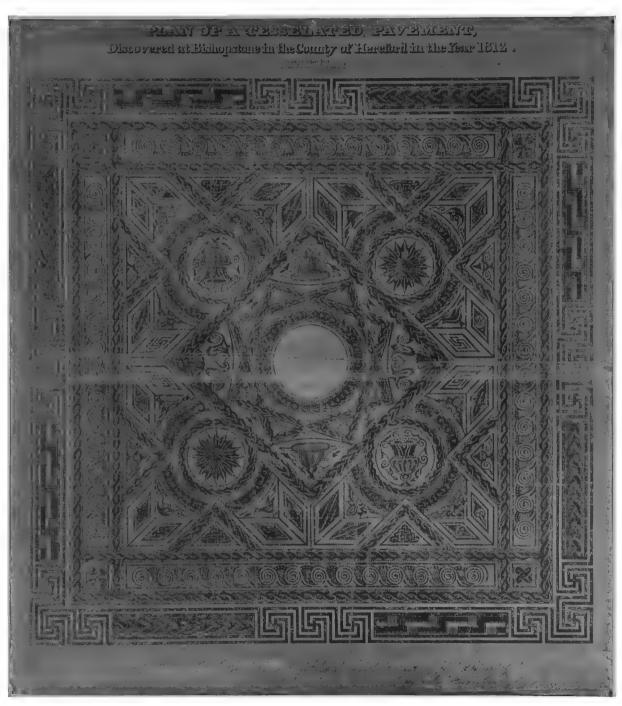


Fig. 14.--Friedel's Drawing of the Pavement found at Bishopstone in 1812 (From a copy in the possession of Mr. Walter Pilley)

#### ROMANO-BRITISH HEREFORDSHIRE

In 1829 a small bronze figurine of Hermes was found during excavations in the town [Woolhope Club Trans. 1882, p. 248; Liverpool Times, 24 March, 1829; Arch. Fourn. xxxiv, 357]. This, like the following, is probably 'a waif from Kenchester.' In 1821 a Roman altar was discovered in excavations in St. John Street, and is now in the Free Library Museum (fig. 9). It is described as a monolith, in good preservation, and measures 3ft. 4½ in. in height, width 16 in. to 17½ in., depth 10½ in. to 12 in. The stone is chiselled at the top, in front, and at the sides, but is rough at the back, as if originally prepared to stand against some other structure. The capital and pedestal are fairly perfect, but a small piece is broken off one angle of the shaft, and the fracture is worn and rounded by time and exposure. It seems to have borne an inscription, now almost completely defaced; the late Prebendary Scarth thought he could trace the letters NIIV, which he suggested might read MIN[ERVAE], and a few other letters have also been

read, the total result being: MIN; but this is all somewhat conjectural [Arch. Journ. xxxiv,

357; xxxv, 68; xxxvii, 147; Woolhope Club Trans. 1879, p. 165; 1882, p. 247, with plate; Antiq. xxvi, 243; Arch. Surv. Index; Wright, Wanderings, 33; Ephem. Epigr. vii, 287, 868; Minutes of Free Library].

A supposed small Roman altar was found some thirty or forty years ago in the moat of the Castle green and is now in the Hereford Museum, but it has no Roman characteristics, and appears to be an object of mediaeval date [Woolhope Club Trans. 1882, p. 248, with plate (inaccurate); Antiq. xxvi, 245; Arch. Surv. Index].

HUMBER.—The 'overwhelming reasons' which have been given for regarding Risbury Camp in this parish as Roman [Woolhope Club Trans. 1885, p. 335] are not convincing. [See p. 169, and art. 'Earthworks'].

KENCHESTER.—See pp. 175 ff.

LEDBURY.—Roman bronze coins, found with worked flints and British or Romano-British pottery, within the area of the British Camp on Wall Hills, a mile or two to the west of Ledbury; probably only the coins are Roman [Arch. Surv. 11; Woolhope Club Trans. 1883, p. 26; Arch. Journ. xxxiv, 361]. Though the camp is British, it may possibly have been occupied temporarily by the Romans.

Leintwardine.—See above, p. 184.

LETTON IN LEINTWARDINE. See p. 187.

LLANCILLO.—Roman coin found here, undecipherable, now in Hereford Museum [Arch. Surv. Index].

Peterstow.—Remains of smelting works have been found here in a field, about 5 miles from the site of Ariconium, and large quantities of iron cinders imperfectly smelted have been dug up, from which the remaining ore has been extracted. The most remarkable deposit was at Cinders Grove, from which many hundreds of tons were subsequently removed [Duncumb, Hist. of Herefs. i, 29; Wright, Wandering of an Antiq. 15; Arch. Journ. xxxiv, 364; Arch. Surv., Index]. 'Hand-blomeries' (see p. 171) have also been found on Peterstow Common, and Roman coins and pottery are found in the beds of cinders, which are in some places from 12 ft. to 20 ft. thick [Arch. Journ. loc. cit.]. One coin of Philip (A.D. 244-9) is recorded [Wright, loc. cit.].

Putley.—In 1876 a large collection of Roman remains was exhibited, found shortly before in excavating the foundation of the north wall of Putley Church. It was conjectured that they were removed from the site of a Roman villa when the church was built. They consisted of a lump of burnt clay, and several flue-roof and flanged tiles; some of these tiles showed the impressions of a cat's feet, others thumb-markings, others the print of a sandal, and others again the marks of woven cloth. The marks on the last-named, seen distinctly on one specimen, gave rise to a theory advanced at the time by Mr. Grover that it was the custom to wrap a corpse in cloth and pour plaster-of-Paris round it; portions of plaster with the marks of the strands of the linen have been occasionally found on Roman sites, and similar marks of woven cloth are said to have been found at York [Journ. Brit. Arch. Assoc. xxxii, 250; Duncumb, op. cit. iii, 97; Arch. Surv. Index; Arch. Journ. xxxiv, 363; Woolhope Club Trans. 1882, p. 258]. In 1877 Mr. Riley found a wall, roof-tiles, and pottery on his estate, which probably confirm the theory of a villa; but its exact site has not been discovered [Arch. Journ. xxxiv, 364].

Ross.—A copper coin of Trajan 'in excellent preservation and of considerable beauty' was found in 1804; on the reverse was a horseman striking down his foe. Other coins found here seem to have come from Ariconium [Brayley and Britton, Beauties of Engl. and Wales, vi, 508;

Arch. Surv. Index].

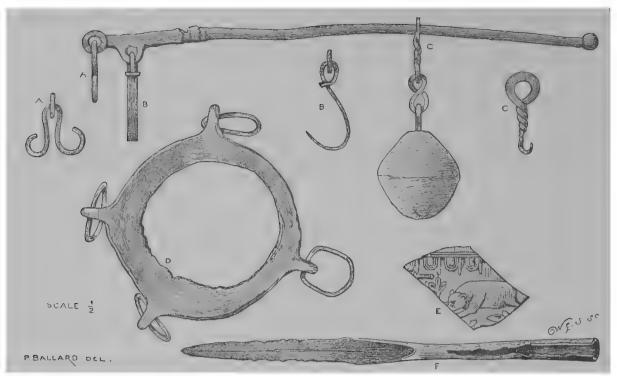


Fig. 16.—Roman Steelyard and other Objects from Stretton Grandison (Now in Hereford Museum.) (From Arch. Cambr.)



Fig. 17.—Roman Lamp from Stretton Grandison (From Arch. Cambr.)



Fig. 18.—Altar found at Tretirb

# ROMANO-BRITISH HEREFORDSHIRE

St. Weonards.—Roman coins, scoriae, &c. reported here [Arch. Cambr. (Ser.3), i, 168; Wright, Wanderings of an Antiq. 16; Arch. Surv., Index]. Wright also states that when the tumulus near the church was opened a piece of pottery, supposed to be Roman, was found, and that Roman coins found in the churchyard were in Mr. Mynors' possession [Arch. Essays, i, 66;

Uriconium, 40, 43].

STOKE PRIOR.—At Blackwardine in this parish tradition has asserted the existence of a 'fortified Roman town of considerable size,' but although Roman remains have been found, they hardly, as was once thought, 'point to the existence of some rather important Roman station.' No foundations of buildings have been discovered, but only numerous coins and fragments of pottery [Wright, Uriconium, 48; Arch. Journ. xxxiv, 372; Arch. Surv. Index; Woolhope Club Trans. 1882, p. 256.] Jonathan Williams mentions coins found here, including those of Augustus, Trajan, and Constantine the Great (one with wolf and twins), also pottery and bones, all in black soil [Leominster Guide (1808), p. 337]. He placed the site of Bravinium here [Hist.

of Radnorshire, 49; see above, p. 184].

The principal discoveries were made in the construction of the Leominster and Bromyard Railway in 1881, when remains came to light at 3 ft. or 4 ft. below the surface. Among them are said to have been a gold bracelet and ring, and a large number of skeletons, 'all buried doubled up in sitting posture at different distances from the surface'; one grave was 13 ft. below the ground, but the rest much less. The information however is not entirely trustworthy [Woolhope Club Trans. 1885, p. 341; see also ibid. 1882, p. 256]. A kiln (also described as a hypocaust) was also found, constructed of worked stones, which were afterwards utilized by the railway men. Among other finds were numerous oyster-shells, querns, fragments of coarse red, yellow, blue (sic), and black pottery, and twelve coins, mostly of the later Empire. Among the pottery was part of an amphora of coarse red ware with the stamp QICSEG; the names given for the coins are Agrippina II (A.D. 49-59), Vespasian (a silver denarius), Tetricus (268-73), Constants (291-306), Constantine the Great (306-37; coin with VRBS ROMA), Crispus (317-26), Constantine II (317-40; two coins), and Honorius (395-433); others were too difficult to decipher. Coins of Augustus are also recorded [Woolhope Club Trans. 1885, p. 341; 1896, Appendix, p. 1]. The quern is now in the Hereford Museum.

The amphora above mentioned, being badly made, has been thought to be of local make (otherwise it would not have been imported), and this, in conjunction with the discovery of the supposed kiln (see above), which is said to have comprised thirty ovens, has been taken as

evidence that pottery was manufactured here.

For the supposed Roman road passing this site, see above, p. 174.

STRETTON GRANDISON.—The village of Stretton Grandison lies at the point where the Roman road which runs eastward from Kenchester comes to an apparent end, another road (not certainly Roman) running thence in a south-easterly direction (see p. 174). There is on a hill above the village an extensive camp, and it was therefore supposed that this place represents the station of Cicutio, mentioned by the anonymous geographer of Ravenna [Arch. Cambr. (Ser. 2), iv, 320; (Ser. 5), v, 198; Wright, Celt, Roman, and Saxon (6th ed.), 537]. But setting aside the fact that Cicutio is placed between Magna and Caerleon, and therefore in another direction, there does not seem to be sufficient evidence for the identification, and we must follow Professor Haverfield in rejecting it [Arch. Surv. 5; see also Arch. Journ. xxxiv, 368]. however, been many Roman remains found from time to time. During excavations for an aqueduct to carry the Hereford and Ledbury Canal over the River Frome in 1842, black soil was met with containing bones of animals and other remains: a Roman steelyard with weight attached (fig. 16); a bronze spear-head; two gold bracelets, one of coiled wire, the other a flat band with light scroll-work, and each fastening with simple hooks; fragments of ornamented Gaulish pottery, and many pieces of coarser wares. Other objects were discovered in the course of excavating the canal [Woolhope Club Trans. 1882, p. 255; Romilly Allen in Arch. Cambr. (Ser. 5), v, 187 ff. with plate; also Arch. Cambr. (Ser. 2), ii, 46; Arch. Journ. xxxiv, 363]. The steelyard is described as imperfect, having the handle for suspension and the four chains for attachment of the scale-pan wanting. It is compared with one from Gloucester in the British Museum [Arch. x, pl. 13]; another from Catterick in Journ. Brit. Arch. Assoc. xliii, 238; and one at Pompeii [Museo Borbonico, i, 55]. One piece of pottery is ornamented with the figure of a wild boar (see fig. 16E).

A clay lamp was also discovered in a wood near the earthwork, to the east of the church; it is of a common form, with a volute each side of the nozzle and no handle (fig. 17), and on the top is a relief representing Actaeon attacked by a hound; stag's horns are seen sprouting from his head [Arch. Cambr. (Ser. 5), v, 198, with plate; cf. B.M. lamps, nos. 158, 589, and

<sup>&</sup>lt;sup>1</sup> There is said to be a similar one from Wroxeter in the Shrewsbury Museum; but see V.C.H. Shrops. i, 251.

Guildhall Mus. Cat. 48, no. 39]. Several of the above-mentioned objects are in Hereford Museum [Antiq. xxvi, 245, where a bronze lamp-stand is also mentioned as from this site].

TRETIRE.—About seventy years ago an inscribed Roman altar was discovered by Mr. Charles Bailey, F.S.A., which has been fashioned into a font, and is now in Tretire parish church. It resembles the rude capital of a pillar with a square hole in the top, and is about 2 ft. 5 in. high and 16 in. broad (see fig. 18). It was found broken in two pieces. There are remains of an inscription:

DEO TRIV[ii]
BECCICVS DON
AVIT ARAM

Beccicus gave the altar to the God of the Three Ways.'

The attempt of Wright and others to make the inscription Christian by reading 'DEO TRIV [NO]' was hardly successful! [Corp. Inscr. Lat. vii, 163; Wright, Wanderings of an Antiq. 17, with plate; Celt, Roman, and Saxon (6th ed.), 330; Proc. Soc. Antiq. (Ser. 1), ii, 193; Lond. and Midd. Arch. Soc. Proc. E. M. 1874, p. 147 (with plate); Gent. Mag. xii (1862), 456; Arch. Journ. xxxiv, 365; Journ. Brit. Arch. Assoc. xviii, 275; Antiq. xxvii, 235; Woolhope Club Trans. 1882, p. 248; Arch. Surv. Index. For Roman altars used in churches see Roach Smith, Coll. Antiq. i, 13 ff.; he compares one at Halingen in the Pas de Calais,

France. There is another at Staunton near Coleford, in Gloucestershire.]

Walford (near Ross).—At Bishopswood in this parish a hoard of about 18,000 third and fourth brass' coins, nearly all of the Constantine period (A.D. 290-360) was discovered in three urns in 1895, on the property of Mr. McCalmont, by whom they were presented to the Woolhope Field Club. Eighty-four of them were subsequently given to the Hereford Museum, others to that at Gloucester, and 135 to that of Newcastle on Tyne [Proc. Soc. Antiq. Newc. vii, 166]. The three earthenware jars in which they were contained were among a heap of stones about 9 in. below the surface, 50 yds. north of the modern church and a mile east of Kerne Bridge Railway Station, having been inclosed by rough walling built up against the hill-side; they measured about 13 in. high and 5 in. across the mouth and base, and all three were broken. It has been suggested that these coins formed part of the contents of a military treasure-chest, as they include examples minted at Arles, Trier, Lyons, Aquileia, Rome, Constantinople, Siscia in Croatia, Antioch, Carthage, Nicomedia, Herodeia, and Thessalonica, but none from any British mint. Since the discovery of the hoard, part of the fosse and vallum of a rectangular camp have come to light close by, and a quantity of coarse Roman pottery within it, though this does not necessarily imply a Roman origin for the camp. Of these coins 17,550 were examined and classified as follows:—

```
Claudius Gothicus (270)
                                                 T
Diocletian (284-305) .
                                                 1
Maximianus I (286-310)
                                                 I
                                                     From the Alexandria mint
Helena (c. 290-328) .
                                               315
                                                     312 struck at Trier
Theodora (2nd wife of Constantine, died 328)
                                               27 I
                                                     All struck at Trier
Licinius I (307-23)
                                                2 I
Licinius II (315-26)
                                                 7
Constantine the Great (306-37) .
                                                     13 different types
                                             2,455
                     (Constantinopolis type).
                                             3,512
                     (Urbs-Roma type) .
                                              4,214
Crispus (317-26)
                                                    One struck at Carthage
                                                 4
Dalmatius (335-7)
                                                 30
                                             3,683
                                                     Ten different types
Constantine II (317-40)
Constans (333-50) .
                                               450
                                                     Five types
Constantius II (323-61)
                                                     Seven types
                                              2,20 I
Illegible
                                               384
```

Many of these coins have the labarum and other Christian devices and symbols. The hoard must have been deposited not earlier than A.D. 340 [Woolhope Club Trans. 1896, pp. 108, 111; App. pp.1, 4, with plate showing jar in which coins were found; Bristol and Glouc. Arch. Soc. Trans. xix, 399 ff.; Num. Chron. (Ser. 3), xvi, 209 ff.; Arch. Surv. Index].

The name of Walford was thought by Wright to indicate the existence of Roman buildings near the ford, but there are no signs of any foundations [Wanderings of an Antiq. 14].

Walford near Leintwardine.—See above, p. 186.

Walterstone.—A tessellated pavement was found about 1775 at 'Cored Gravel' (probably Coedy-Grafel), about half a mile from the British earthwork two miles north of Oldcastle; this probably implies the site of a villa [Arch. vi, 13; Woolhope Club Trans. 1882, p. 258; Arch. Gambr. (Ser. 2), ii, 50; Arch. Journ. xxxiv, 363; Arch. Surv. Index].

#### ROMANO-BRITISH HEREFORDSHIRE

Wellington.—Pottery found near here, said to be now in possession of Mr. J. S. Arkwright of Hampton Court.

WEOBLEY.—A Roman coin of Constantine the Great, of the usual type, picked up near here in the 17th century [Dineley, Hist. from Marble, pt. 2, ccxlv (Camden Soc. 1868), with illustration]. Weston under Penyard.—The site of Ariconium; see p. 187.

WHITCHURCH.—The remains of a villa are thought to be indicated by a tessellated pavement which was found in a meadow on the right-hand side of the road to Monmouth, on the boundary of the parishes of Whitchurch and Ganarew. It has not yet been explored, but a number of coins have been found. Scoriae and cinders frequently occur, strewn over the surface of the fields, and if the ground is dug to a very little depth, there is found a thick and apparently deep bed of them, extending as far as Weir End in Bridstow parish (see under Goodrich) [Wright, Wanderings of an Antiq. 14; Arch. Journ. xxxiv, 363; Woolhope Club Trans. 1882, p. 258].

WITHINGTON.—A milestone said to be in situ on the Roman road near here [see p. 174].

WOOLHOPE.—See FOWNHOPE.

# MAP showing ANCIENT EARTHWORKS HEREFORDSHIRE 9 6 A; Whitbounne 0 Z Humber Z r) A エ \$ Ħ R, H В Fownhope В [4] Œ, Kilpeck rch Orcop Rass O N N O U T N Reference F Homestead Moats A Promontory Fortresses C Moated Enclosures with stronger works B Hill Forts, etc H Ancient Village Sites C Simple Defensive Enclosures etc. T Tumuli etc: D Mounts X Unclassified Earthworks E Mounts with attached Courts

In the abundance of early earthworks Herefordshire is, in proportion to its area, one of the richest in England; a fact due in part to its position between the peaceful and productive midlands and the wild western regions of mountain ridges and deep valleys which became the refuge of those who were driven westward by successive waves of invasion.

Of contests between Roman and Briton, and Saxon and Dane in this district we know little, nor is there written record of many local events in the course of the Norman Conquest, though there are those silent witnesses, the strongholds erected by Norman feudal lords to hold the Englishmen in check, and to stay the rush of the still untamed Welsh, descendants of the never wholly conquered Britons.

But it must be remembered that long ere the Roman sought to bring this land within his sphere, Goidel contended against Brython, and we know not how far north-west the later Belgic Briton may have advanced from the south.

Some hill-fortresses seem to tell of those early days when British tribes warred one against another, and thus compelled the construction of camps of refuge for the aged men, women, children, and cattle; strongly defenced positions available as a last resort for the tribe, some indeed yielding evidence of continuous occupation. It is not surprising to find that many of these are locally attributed to the British warriors who so long withstood the Roman forces, one name standing conspicuously in the story—Caractacus (or Caradoc).

The late Dr. William Bull well said:—

Dazzled by the brilliancy of his character, every camp in the county whose entrenchments are oblong, or follow the irregular outline of the hills, is a British camp—a camp of Caractacus, whilst every one with rectangular sides is Roman—a camp of Ostorius Scapula; . . . as if there was no fighting after the time of Caractacus; as if the camps had always remained as originally constructed, or as if no other invaders had ever reached Herefordshire and occupied the strong positions they found there.¹

When we seek to distinguish between earthworks of early days and those constructed later we have to admit that, lacking scientific examination by the aid of pick and shovel, we have no sufficient data and, desiring classification, we must accept the following, issued by the Congress of Archaeological Societies, which is based on the form of the works rather than on chronological sequence, though this may be approximately indicated.<sup>2</sup>

CLASS A.—Fortresses partly inaccessible, by reason of precipices, cliffs, or water, additionally defended by artificial works, usually known as promontory fortresses.

CLASS B.—Fortresses on hill-tops with artificial defences, following the natural line of the hill;

Or, though usually on high ground, less dependent on natural slopes for protection.

1 Trans. Woolhope Field Club (1883-5), 20.

<sup>&</sup>lt;sup>2</sup> It must not be forgotten that successive races may have occupied the same fortresses, and that forms of construction were similar in many ages, down to the days of the Commonwealth wars, and even to the present time.

CLASS C.—Rectangular or other simple inclosures, including forts and towns of the Romano-British period.

CLASS D.—Forts consisting only of a mount with encircling moat or fosse.

CLASS E.— Fortified mounts, either artificial or partly natural, with traces of an attached court or bailey, or of two or more such courts.

CLASS F.—Homestead moats, such as abound in some lowland districts, consisting of simple

inclosures formed into artificial islands by water moats.

CLASS G.—Inclosures, mostly rectangular, partaking of the form of Class F, but protected by stronger defensive works, ramparted and fossed, and in some instances provided with outworks.

CLASS H.—Ancient village sites protected by walls, ramparts or fosses.

CLASS X.—Defensive works which fall under none of these headings.

Fortresses of Class A are not found in the county, but those of Class B

abound, mostly occupying strong positions on the hill-summits.

The state of preservation of a few is good, but many have been much destroyed in the course of agricultural operations, and by other causes. In size Credenhill stands first, possessing 50 acres, Wall Hills, Ledbury, has 33 acres, Sutton Walls 30 acres, and Eaton Bishop 30 acres; the remainder are of lesser area.

Several inclosures may be said to belong to Class C, but typical examples, those of Roman castrametation, have been destroyed, if they ever existed, excepting Leintwardine, which still shows work of the Romano-British period, and Kenchester, which retains some traces.

Class D is present in remarkable numbers, suggesting the need for strong-holds along the troubled western border where the smallest holding had to be provided with its tower, alike to protect the holder and form a link in the chain of defence against the inhabitants of the wild west, ever ready to make raids into the settlements of their eastern neighbours.

Though we should attribute the construction of most of these mounts, with their towers of timber, or in some cases of stone, to Norman days, it is possible that others may be of earlier date; perhaps some were old burial tumuli utilized for defensive purposes.<sup>3</sup>

Class E is well represented both in number and character. It must not be forgotten that these, presumably Norman, strongholds were at first provided, not with stone keeps and walls of which we see the ruins, but with strong wooden defences such as are depicted by the needle in the work at Bayeux. Most of the mounts are artificial and, necessarily, earth freshly thrown up would not sustain the weight of stone buildings.

It was not till many years had passed that the old palisade defences were removed and stone was substituted, indeed in many cases wooden walls guarded the strongholds till they ceased to be of service or worth main-

taining.

Examples of Class F are found in abundance in many lowland districts of England, and are usually regarded as of late date, but where placed close to the parish church, or where occupying positions demanding special protection, they probably originated in Saxon or Norman days. There is no work of this class of exceptional character in Herefordshire, but many of the simple form of homestead moats, just a deep moat or fosse dug round a

<sup>&</sup>lt;sup>3</sup> It is to be regretted that the Ordnance Surveyors too often mark as 'tumulus' works evidently intended for defence.

space and the material from it thrown on to the island thus formed, raising the latter slightly above the surrounding land.

Works of Class G are more developed than simple homestead moats, and sometimes guarded buildings worthy of the name of 'castles.' Of these there are several in the county.

Class H is not represented in Herefordshire so far as we are aware, though perchance some of the hill fortresses were permanent guards to village settlements.

Class X, primarily intended for boundary banks and other exceptional earthworks, includes those 'camps' or doubtful inclosures which cannot be classified.

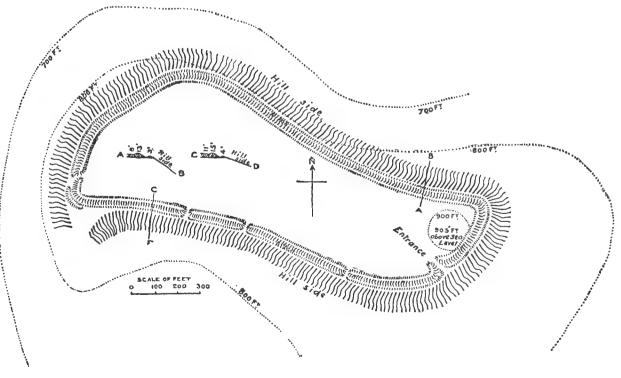
In Herefordshire, Offa's Dike, which would otherwise be included in Class X, is of sufficient importance to demand the special description provided by Mr. J. G. Wood, M.A., F.S.A.

Acknowledgements are due to Dr. H. Cecil Moore, of Hereford, for replying to various queries relating to the county, and to Dr. H. E. Counsell, of Oxford, and Mr. R. M. George, of Kingsland, Herefordshire, for inquiries made at Leominster. The numerous foot-note references to the Transactions of the Woolhope Field Club indicate our indebtedness to the vigorous Herefordshire society.

#### HILL FORTS

(CLASS B)

Aconbury: The Camp.—This stronghold, situated 4 miles south of Hereford, occupies the highest part of a hill which rises from 250 ft. to 400 ft. above the land around. The position is to a limited extent naturally



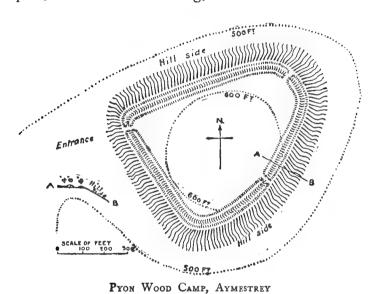
THE CAMP, ACONBURY

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defended by the fall of the hill, which, however, is not steep at any point. The entrenchments are simple, consisting of a fosse with the ballast therefrom thrown inward to form a rampart, the hill-side forming, with the fosse, a second rampart in places. The work as a whole is not powerfully defended, the base of the fosse and rampart together being less than 50 ft. in width. The hill and entrenchments are covered with trees and underwood, the latter being so close about the south-west corner that a perfect survey at that point is now almost impossible, but apparently an outer rampart protects this weak spot. Of the several openings in the rampart only that on the southeast appears to be early, and may be the only original entrance to the strong-The late Dr. H. G. Bull has described the position of this camp.

AYMESTREY: PYON WOOD CAMP.—This well-defined small fortress occupies a knoll upon a tongue of land which projects eastward from a range of downs about 6 miles north-west of Leominster. The position is naturally defended by the fall of the hill on all sides, and the entrenchments are simple, consisting of a fosse with the ballast thrown inward to form a rampart, the hill-side forming, with the outer side of the ditch, a second bank;



rises above the main rampart an inner fosse is formed.

and as the inclosed camp

As the ancient road, here known as Watling Street, runs at the eastern base of the hill, and within an eighth of a mile, it is probable that this fortress may have been intended to command the road.

It must also be noted that the much larger and stronger camp, Croft Ambrey, is only about a mile

distant on the north-east. There is a reference to Pyon Wood Camp and a plan in the Transactions of the Woolhope Field Club.

See KIMBOLTON. BACH CAMP.

Brampton Bryan: Coxall.—Coxwall or Coxall Knoll. generally known as Coxall Knoll is situated in a valley about 5 miles east of Knighton,6 and has on its summit one of the most discussed camps of Herefordshire and Shropshire. Apart from its supposed associations, the camp is of special interest as, to use the words of Hartshorne:-

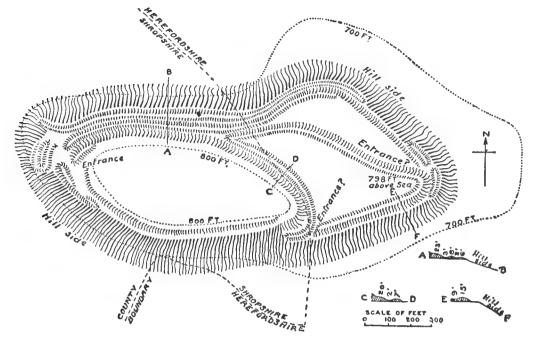
There is one peculiarity which makes the work remarkable and totally unlike any other example of castrametation in the whole chain of these border forts . . . a sort of double camp, as though one part had grown out of the other.7

<sup>&</sup>lt;sup>5</sup> Ibid. (1895-7), 121.

<sup>&</sup>lt;sup>4</sup> Trans. Woolhope Field Club (1883-5), 294.
<sup>5</sup> Ibid. (1895-7), 121.
<sup>6</sup> The boundary lines of Herefordshire and Shropshire run through the camp about 2 miles west of Leintwardine. Bucknell Railway Station is half a mile to the west.

<sup>&</sup>lt;sup>7</sup> Salopia Antiqua (1841), 53.

The hill rises 300 ft. to 400 ft. above the land around, its summit being somewhat difficult of access; though not affording so commanding a position as many hill-fort sites in this district, it overlooks the valley of the River



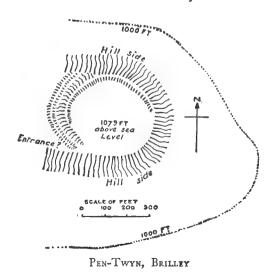
COXALL KNOLL, BRAMPTON BRYAN

Redbake on the north and the greater valley of the Teme on the south. The centre of the main, or western, inclosure lies above 800 ft. (Ordnance Survey contour line), and is stronger by nature than the slightly lower eastern works which, in consequence, were provided with further entrenchments. Though not so now, the outer rampart on the extreme east probably was perfect, and a similar work was carried round the western inclosure. It is difficult to identify the original entrances, but they were probably as shown on the plan.

Brandon Camp. See Leintwardine.

Brilley: Pen-Twyn.—The camp is situated 7 miles south-west of Kington on a small tongue of land, and is cut off from the west by a double

line of ramparts; it stands upon high land, 1,079 ft. above sea level, and is naturally defended on the north, south, and east by the fall of the hill, which, however, is of no great steepness. As the plan shows, the strong inner rampart which dominates the western approach is extended as a ridge along the north and north-east of the inclosure, but on the south and south-east we find simply a scarping of the hill-side. If, as seems likely, the ridge or rampart once extended all round, the place would have been of far greater strength. The work appears to be early, but we

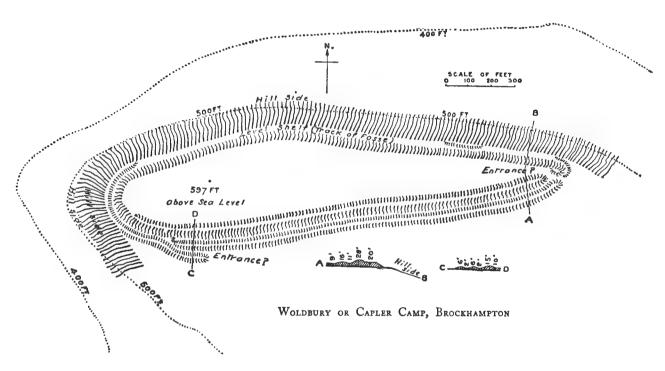


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have failed to find any record of discoveries that would determine the date of its origin.

COXALL. See BRAMPTON BRYAN.

Brockhampton: Woldbury or Capler Camp.—Capler Hill, a wooded, camp-crowned height, rising about 400 ft. above the River Wye, which flows at its western base, is situated a little more than 6 miles south-east of Hereford. The position of the fortress which occupies the summit is remarkable, commanding in clear weather a view extending 30 miles around, forming in fact an ideal site for an early defensive work for refuge, or for more permanent occupation. Though held by some writers to have been constructed late in the Roman period, we see nothing to render it unlikely that this fortress appertains to earlier days. The position is naturally defended by the steep fall of the hill south-west, west, and north, and against the west generally by the River Wye. The entrenchments vary according to the actual needs of the part to be defended; that on the north and west, being naturally strong,



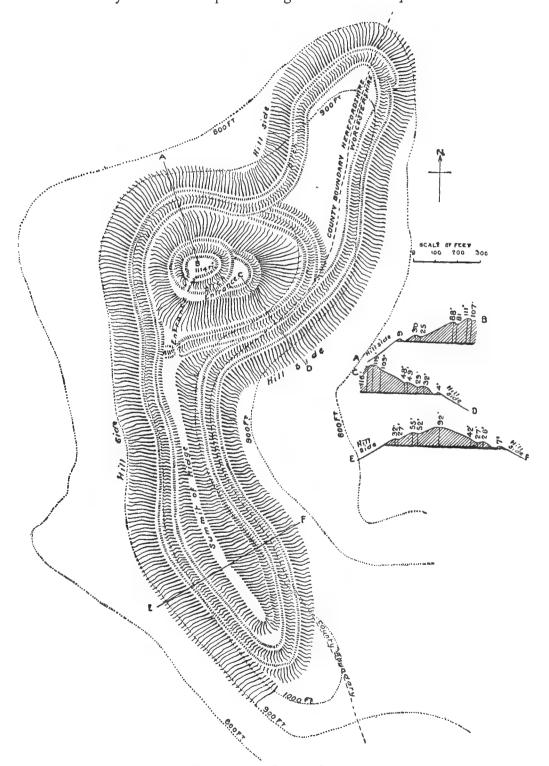
was defended by one fosse on the hill-side only, while the south, the weaker side, where the high land continues to some extent, is protected by a fosse with the ballast thrown both sides to form two ramparts of some considerable power. Towards the south-west a third rampart and second fosse are found; the fosse running from the east does not unite with that coming from the west. The extreme east is not now in its original condition. Entrances appear to have been both at the east and towards the south-west.

The water-supply was obtained from the fosse on the south, a portion thereof being deepened into a pool 138 ft. long, the approaches to which are guarded by a high bastion close to the opening, or passage, through the main rampart. A small stream flowed into the pool from the camp above.8

The whole earthwork remains in fair condition, and affords an interesting study.

CAPLER CAMP. See BROCKHAMPTON.

Colwall: Herefordshire Beacon.—This remarkable hill-fortress, being situated in close proximity to so popular a resort as Great Malvern, is one of the most widely-known camps in England. It occupies an isolated hill



HEREFORDSHIRE BEACON, COLWALL

belonging to the Malvern range, separated on the north from the greater heights by a dip of 327 ft., rising at the highest point to an elevation of 1,140 ft. above sea level, and commanding a wide prospect.

As the plan shows, a formidable rampart was constructed around near the top of the hill, and, outside of the rampart, a fosse varying in depth. It has been thought well to show this rampart complete, as in its original condition, but it will be borne in mind that all the defences are partially destroyed.

General Pitt-Rivers indicated that on the western side of the hill a trackway passed down from the fortress in a south-westerly direction, and that another was at the southern extremity of the camp, where a zigzag path

leads upwards from the Earl's Ditch (see Class X).

A part of the defences on the western side of the 'citadel' has been so destroyed that some antiquaries have thought that the work was not completed on that (presumably the friendly) side, but General Pitt-Rivers was of opinion that the breaches had been caused by natural denudation, an agent ever potent on that side, exposed as it is to the most trying climatic conditions. The hill rises to a ridge within the encircling defences, affording hardly any level surface, and though pits, possibly hut-circles, &c., are found, it is likely that the camp, if of British origin, was for refuge rather than for permanent occupation by other than a few men whose duty it was to watch from this commanding height.

The discovery of pottery of early British and Romano-British date leaves no room to doubt that Celtic man occupied Beacon Hill, and perhaps he constructed the whole of the rampart and fosse to which we have referred, though it must be mentioned that some observers think the whole work appertains to

Norman days.

Surpassing all the other work in interest is the nearly central mount and court stronghold at the highest point of the inclosure. This, often called a 'citadel' and regarded as contemporary with the outer works, appears so similar to Norman work elsewhere that we do not hesitate to regard it as an addition to the original castrametation. The mount is a natural knoll rising about 60 ft., and has a fosse, proper to itself, with a causeway leading to the saucer-shaped summit. This causeway is exceptional, being of natural rock left when the rest of the fosse was excavated.

A small lunar-shaped base-court will be noted on the east of the mount, and strong entrenchments isolating this central work from the remainder of the camp.

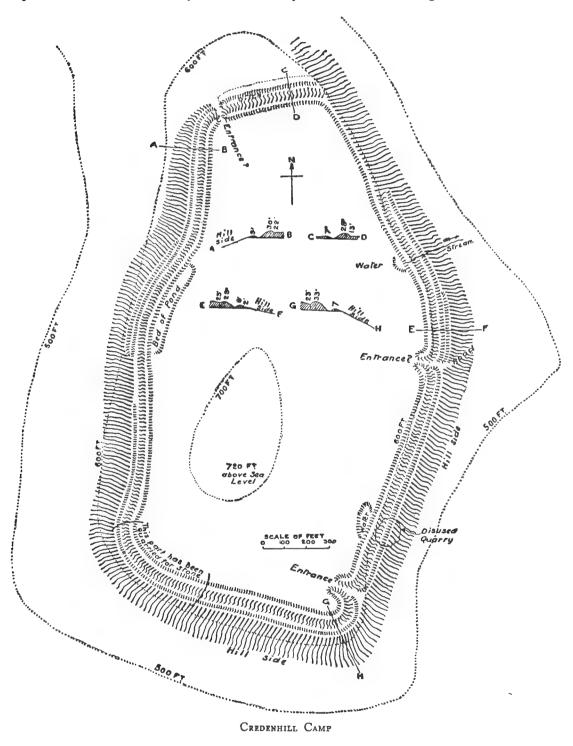
Unusual though it is to find a Norman stronghold in so high a position, this is not without some few approximately parallel examples, e.g., Old Sarum (part of) 'Caesar's Camp,' Folkestone, Edburton, on the Sussex Downs, &c.

Papers full of interest relating to the camp will be found in the Trans. Woolhope Field Club, notably in Vol. 1877-80. The frontispiece to this volume shows plan and sections drawn by the late General Pitt-Rivers in 1879.

CREDENHILL CAMP.—Commanding one of the most extensive views in the county, Credenhill rises, isolated from its neighbours, a little over 5 miles north-west of Hereford and a mile north of Kenchester. The ground around falls sharply for some 300 ft. from the top of the hill, rendering the

<sup>9</sup> See paper by Mr. F. G. Hilton Price, F.S.A. &c., op. cit. 217-27.

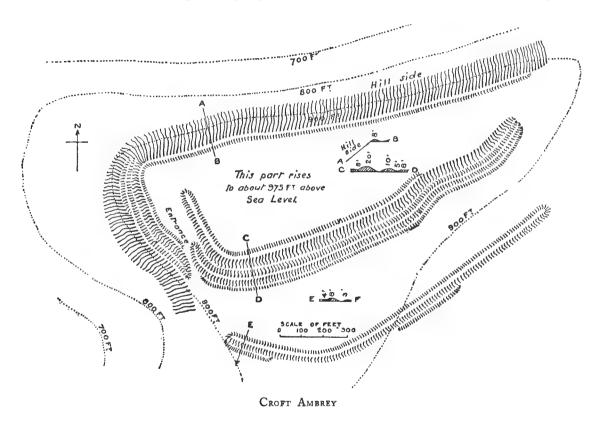
position such as would naturally be selected for defence, but the steepness of the slope varies, as will be seen by the contours marked on the plan and by the sections. The entrenchments as a whole are in a good state of preservation, though in a chaotic condition at the south-west corner, which has been quarried for stone; 10 they consist mainly of a fosse and rampart, but at certain



10 It is most unfortunate that quarrying operations have destroyed the south-west angle of the camp, for these, according to a plan made in 1882, were entrenchments apparently guarding a carefully-involved entrance. See Trans. Woolhope Field Club (1881-2).

weak spots an outer rampart adds to the defence, while on the north-east the fall of the hill was sufficiently steep to render a fosse unnecessary. On the extreme north there was probably an outer rampart, but it has disappeared. The earthworks are of powerful construction, and the centre of the inclosure rises above the rampart, forming in many places an inner ditch. The ponds of water within the inclosure and below the rampart form an unusual feature in a hill-fort. Of the three openings two may be entrances of early date, that upon the south-east appearing the oldest, the one on the north side seemingly modern.

CROFT: CROFT AMBREY or AMBERY.—This remarkable elliptical fortress is situated 6 miles north-west of Leominster, and occupies a tongue of land jutting from a hill which continues 2 miles north-east and 1 mile south-southwest, the position being strongly protected on the north and south-west by the



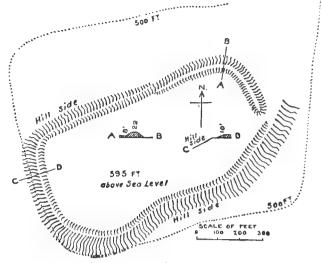
fall of the hill. The entrenchments vary, the north having an inner scarp only, forming a rampart by the slope of the hill, and a fosse with the rise of the hill towards the centre. The southern entrenchments are very strong, an outwork also protecting this naturally weak side. The work stands some 500 ft. above the land three-eighths of a mile distant north and south, and commands the country round. The entrance was probably at the south-west angle, and possibly another was on the eastern side.

Croft Ambrey is locally regarded as one of the camps upon which Caractacus fell back before Ostorius Scapula, but we find no evidence to verify this supposition. Though it is to that period we owe the construction of some Herefordshire camps this may not be one of them, as there are indications about the work which suggest an earlier origin. It is said that Owen

Glendower, after his decisive victory over Mortimer, sent men to occupy Croft Ambrey as a strong defensive position. See under IVINGTON.<sup>11</sup>

DINEDOR, or OYSTER HILL CAMP.—This fortress is situated 2 miles south-by-east of Hereford, occupying a hill the highest part of which is

from 200 ft. to 400 ft. above the land on all sides within half a mile. The position is naturally defended by the slopes of the hill, except upon the north-east, where the high land continues. At the latter point, near to and covering the entrance, is a formidable rampart rising 22 ft. above the land without. This rampart is extended along part of the northern side of the camp, but the only defence remaining for the rest is a scarp, in itself a poor protection, but possibly once



OYSTER HILL CAMP, DINEDOR

the rampart continued or the summit of the scarp was furnished with a rough wall or timber defences.

Oldbury in Much Marcle parish presents the same lack of defence in parts.

The central portion of the inclosure rises above the lines of defence and affords a view of the land around for some miles. The Scottish army is said to have occupied the camp in 1645, but there is no evidence that it was altered by the troops in any way. Like so many others, this fortress has been styled Roman, but we see nothing to indicate such origin.

Donnington: Haffield.—There is here a piece of ground over 5 acres

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St. Ethelbert's Camp, Dormington

in extent, of oval shape and about 350 ft. above sea level, having a scarp, excepting on the east and south - east sides, where the hill slopes sharply down. This inclosure is denominated a 'camp' upon the Ordnance Survey, with apparently little or no authority.

DORMINGTON: ST. ETHELBERT'S CAMP. —
This fortress occupies the highest portion of Backbury Hill, 5 miles

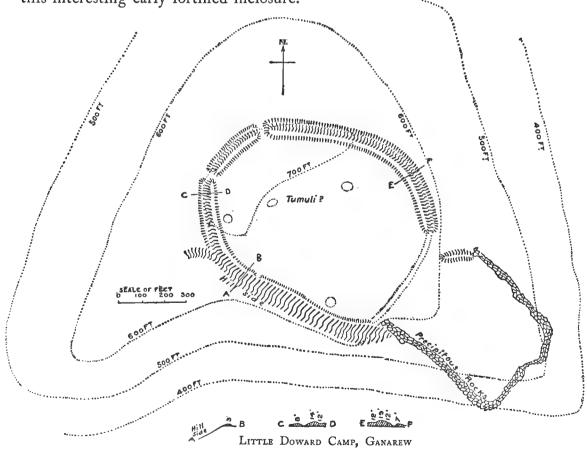
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<sup>11</sup> Plans appeared in the Trans. of the Woolhope Field Club (1881-2 and 1895-7).

east of Hereford, standing about 700 ft. above sea level,<sup>12</sup> and from 500 to 600 ft. above the valley of the Wye on the south-west. The position is naturally defended, except on the north-west, by the slopes of the hill, though the ridge of high ground continues on the north-east and south-west. The slope being gentle on the north-west of the camp, rendering attack more easy there, we find that the strong protection of double ramparts and fosses was provided on that side. The east shows no artificial rampart; perhaps it was not necessary owing to the abruptness of the natural scarp, or possibly one existed and has slidden down the slope. A landslip has at some period carried down much of the south-east side, rendering that point picturesque and rugged but chaotic as to the line of the defensive works.<sup>13</sup>

The arrangements of entrenchment at the entrance, on the north-east point, have apparently been at some period altered from the original plan. While it is generally assumed that this is a hill-fort of early times, it is not unlikely that, as is reputed, it was occupied in Saxon days and, may be, we owe the alteration of the north-east point to that period; indeed, we know of no discoveries to prove that the whole camp is not of the time when Saxon was contending with Briton.

GANAREW: LITTLE DOWARD CAMP.—Seven miles south-west of Ross, on the summit of a hill rising some 600 ft. above the River Wye, is situated this interesting early fortified inclosure.



<sup>12</sup> The highest portion, that on the south, is 738.6 ft. above sea level.

14 It is doubtful whether the gap in the rampart, &c. on the west, was an entrance.

<sup>18</sup> The landslip, though caused by well-known geologic agency, is traditionally credited to the great earth-quake which accompanied the Crucifixion!

But for the mutilation to which it was subjected in the middle of last century this would be one of the most perfect of Herefordshire camps, but at that time Mr. Blakemore, then the owner, not only erected an incongruous iron structure as an outlook, but also, to level the land around it, destroyed the outer guard of the court, then existing on the north-west of the main camp, by throwing the material of the rampart down the steep hill-side.

The camp is thus described:—'The northern position, irregularly oval in shape, with an area of fourteen acres, is inclosed by a single defence on the steep side towards the river, but with double embankments and ditches on the northern and western sides; towards the south the other portion of the camp exists, with an area of six acres, and this part has the natural protection of perpendicular rocks.' 15

This description requires some modification, as there appears to be but

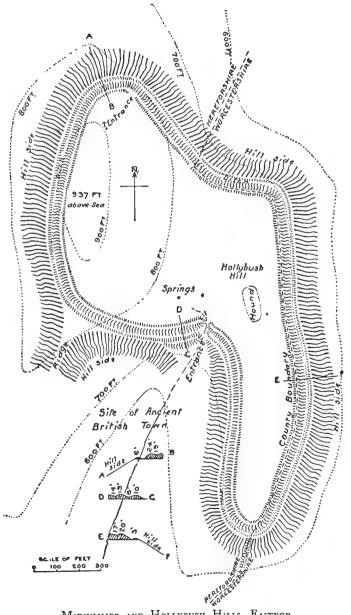
one fosse on the northern and western sides, and the outer embankment is little more than is necessarily formed when a fosse is dug on a steep slope.

A slight fosse separates the main portion from the precipice-protected south-eastern inclosure; it probably was furnished with a rampart which has been thrown into the fosse. Tradition assigns the camp to Celtic hands, probably rightly so, as it may well have served for refuge in troublous times. The original entrance appears to have been on the west, the other openings may be modern. The site of tumuli are marked on plan, but are hard to trace.

Doward (GREAT). See WHITCHURCH.

Doward (LITTLE). See GANAREW.

EASTNOR: MIDSUM-MER AND HOLLYBUSH HILLS.—This remarkable early stronghold, 3 miles east of Ledbury, occupies the summit of a hill



MIDSUMMER AND HOLLYBUSH HILLS, EASTNOR.

<sup>16</sup> Trans. Woolhope Field Club (1883-5), 213.

divided in its area by a glen, the portion north of the glen being known as Midsummer Hill, the southern as Hollybush Hill. Within the portion on Hollybush Hill are many hollows, probably the remains of hut circles. On the east face of Midsummer Hill are several lines of hollows which may have been habitations. It is probable that an ancient British town existed on the south-west, where are traces of hut hollows and dams for holding back the water flowing from springs in the camp.

The highest point of the inclosure stands about 700 ft. above the lowest land near, and is 937 ft. above sea level. From this it drops to about

700 ft. on the southern extremity.

The principal defence consists of a fosse on the natural slope of the hill, with the ballast thrown inwards to form a rampart, a second rampart being formed by the downward fall of the hill beyond the fosse; a slight fosse is also formed within the camp by the upward inclination of the land within the inclosure. The principal entrance appears to have been from the south-west, as shown on plan, here a second rampart has been raised to defend the passage.

What is known as the Earl of Gloucester's Ditch enters the camp on the north-east, runs along the fosse on that side and passes down the hill.

Reference to this cutting will be found under Class X.

A mound or barrow about 150 ft. long by 32 ft. broad, and 3 to 4 ft. high, contained within a slight trench, is situated to the east of the ravine entrance into the camp. Excavations have not thrown any definite light on its purpose; it may be a botontinus or terminal mark such as the Romans created, or it may be no more than an ancient artificial rabbit burrow.

The age of this camp is exceedingly doubtful, but its principal characteristics are those of Pre-Roman-Celtic work.<sup>16</sup>

EATON BISHOP.—A supposed camp, situated 3 miles west of Hereford, follows the east ending of a bank above the River Wye, at the junction of a stream and mill-race flowing from the south-west. There appear to be no

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CHERRY HILL CAMP, FOWNHOPE

true earthworks in existence now, whatever there may once have been, but the hill-side has been slightly scarped, probably by nature, which induced antiquarians of old to see here a camp.

FOWNHOPE: CHERRY HILL, or FOWNHOPE CAMP.—This camp, situated 5 miles south-east of Hereford, is elliptical in form, and stands on a hill about 430 ft. above sea level, and 300 ft. above the River Wye, which winds a quarter of a mile to the southwest. The position is naturally defended on all sides by the fall of the hill, which is steep upon the south-east, and less sharp

<sup>&</sup>lt;sup>16</sup> Much valuable information will be found in a paper by Mr. F. G. Hilton Price in the *Trans. Woolhope Field Club* (1877-80), 217.

at other points. The entrenchments are vague, and were never of great power, but appear to have varied according to the actual needs of the part to be strengthened. The inner fall upon the north-west and south-west sides above the fosse is perhaps rather owing to the rise of the hill above the entrenchments than an intentional scarp. The position commands a view to the east to the Marcle Hills 3½ miles off, and west across the Wye valley for about the same distance.

Like many Herefordshire hill-forts this work has been attributed to the Romans; it is said to have been held in temporary opposition to the British camp on Capler Hill—but we see no evidence to suggest that origin. Little seems to have been recorded respecting the camp, or any discoveries therein, and no care has been taken to prevent its embankments from being effaced.

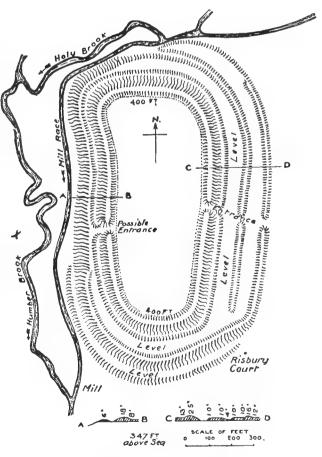
HEREFORDSHIRE BEACON. See Colwall.

HUMBER: RISBURY CAMP.—Risbury is a township partly in the parish of Humber and partly in Stoke Prior, the camp being a little over 3 miles from Leominster in a south-easterly direction.

Unlike most fortresses of its type it occupies a position in a valley and depended for protection on the formidable character of its main vallum and fosse, being little aided by natural slopes and scarps. On the north-west and west, however, the ground declines to streams, and probably there was morass.

or marsh, enough on those sides to afford some added protection; consequently there less outer entrenchments were made than elsewhere. Notwithstanding its position and the fact that the land on the east is higher than the level of the camp, Risbury is one of the strongest fortifications in Herefordshire, inclosing altogether 25 acres, the inner camp being a level space of about 8 acres.

The leading feature of the work is the great inner vallum or rampart above mentioned, unfortunately partly destroyed and lowered, but still from 6 ft. to 15 ft. high from the inside, and from 16 ft. to 27 ft. on the outside where it drops into the surrounding fosse. When this earthen rampart was last opened it was found to inclose a dry-built stone wall which, alas! has proved a handy quarry. The entrenchments outside this



RISBURY CAMP, HUMBER

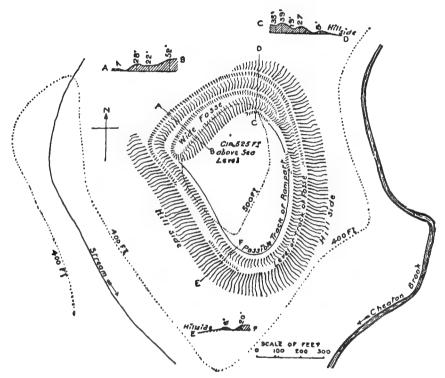
<sup>&</sup>lt;sup>17</sup> Gough, in his Additions to Camden's Britannia (1789), ii, 462, simply mentions the camp as 'square and nameless.'

rampart inclose a space some 240 ft. wide on the east, less on the south, and still less on the west and north-west. The entrance on the east, though generally considered original and by some thought to prove Roman origin by its simple directness, appears to the writer to be of somewhat late date, if not comparatively modern; if so we must look upon the western as the ancient way of access. It is more difficult of approach, and so far better accords with early methods.

We cannot here enter into the question of the date of this earthwork, but refer those who are interested to the *Transactions of the Woolhope Field Club*, where the various theories of origin, pre-Roman, Roman, post-Roman, British and Saxon, are discussed.<sup>18</sup>

IVINGTON. See LEOMINSTER.

KIMBOLTON: BACH CAMP.—The Bach (pronounced Bayche) is situated miles east-by-north of Leominster, occupying a knoll of land towards



BACH CAMP, KIMBOLTON

the southern ending of some high ground between two streams which unite three-eighths of a mile south. The position is to an extent naturally defended by the fall of the hill west, south, and east, but is commanded by higher land, at no great distance, on two sides. The entrenchments are in a fair state of preservation, especially on the north and north-west; and at these parts, which are by nature weak, the earthworks are of a powerful character. At other points the work is mostly defended at the present time by a scarp only; but as there are traces here and there of a fosse and rampart which would have been needed to protect the stronghold, it is likely that such once existed at all points. The portion cut by the section E F appears to have an

<sup>18</sup> Op. cit. (1883-5), 334 et seq. We are indebted to this article for valuable information.

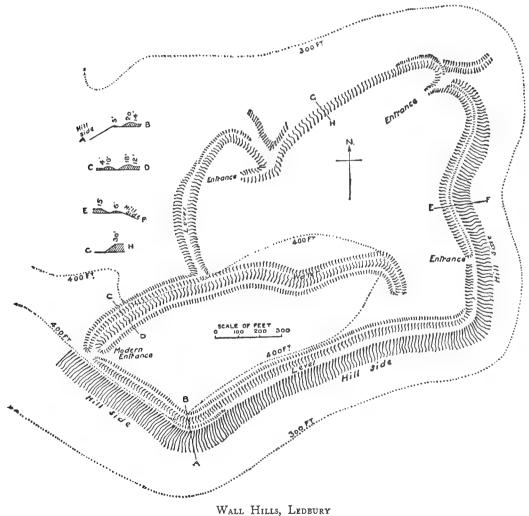
outer scarp to the ditch, as shown on the section, but this may not have been part of the original plan.

The wide fosse, or hollow, on the northern side is a noteworthy feature, and may have accommodated the huts of the defenders.

Three entrances may have existed, but one appears modern, and there were possibly only two. The southern was 'well guarded, and seems only to have admitted of approach in single file from each side, with a triangular vallum, hollowed out to receive special guardians of the entrance.' The position commands the south for about a mile, at other points only about half a mile; but the view there of distant hills gives support to the opinion that Bach Camp was one of a series of early defensive works within signalling distance, as there are several other important fortresses within 10 miles of Kimbolton. As a writer in the *Transactions of the Woolhope Field Club*, already quoted, says:—

The more the strength of this position is considered, and the vast labour taken to fortify it, especially with the stockade in addition, the more probable it seems that it was occupied for some considerable time, and was rather a British fortified village or town than a simple encampment.

LEDBURY: WALL HILLS.—This important and interesting stronghold is over a mile west of Ledbury, and occupies the eastern portion of a hill which



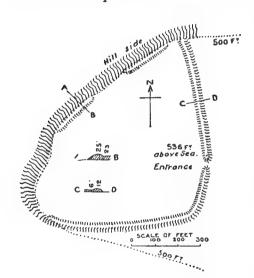
19 Trans. Woolhope Field Club (1883-6), 170.

continues above the 400-ft. contour line for three-quarters of a mile northwest, and stands 250 ft. above a stream half a mile to the east.

Though the hill is not lofty or difficult of approach, the position of the camp is naturally more or less defended upon the east and south by the slope of the ground, but the hill-side is not very steep at any point. The stronghold is divided into two inclosures, the smaller portion being upon the higher land. The entrenchments vary according to the actual needs of the portion to be defended, those of the larger inclosure consisting mostly of a fosse or, in places, a level shelf; the smaller and stronger inclosure being protected by a rampart, and on the north-west by two ramparts with a fosse between. We may add a few particulars from the pen of the late Dr. H. G. Bull:—

The camp... has two main entrances; one from the north, through the outer portion, called 'Fluck's Close,' and another from the east—this entrance is approached by a deep fosse road, or covered way, from the north, and it is also defended by a traverse and deep fosse in front of it. The camp is supplied with water from a spring close to the ramparts, and by two ponds on the southern side of the outer fosse... You will observe an entrance on the western side; this is not an original entrance.<sup>20</sup>

LEINTWARDINE: BRANDON CAMP.—About a mile south of Leintwardine and the River Teme rises a hill, of no great altitude above its surroundings, the western portion of which is occupied by the camp. The north and west



Brandon Camp, Leintwardine

sides had a slope of sufficient steepness to materially aid defence, but elsewhere protection must have been wholly artificial, yet we find on the east and south only a single rampart, and that not above 12 ft. high from the outside at any point. It may be that this rampart has been lowered and the material thrown into an outer fosse, but hardly a trace of the latter exists. Probably the rampart was complete on the north and west of the camp, but, as the plan shows, only two lengths remain.

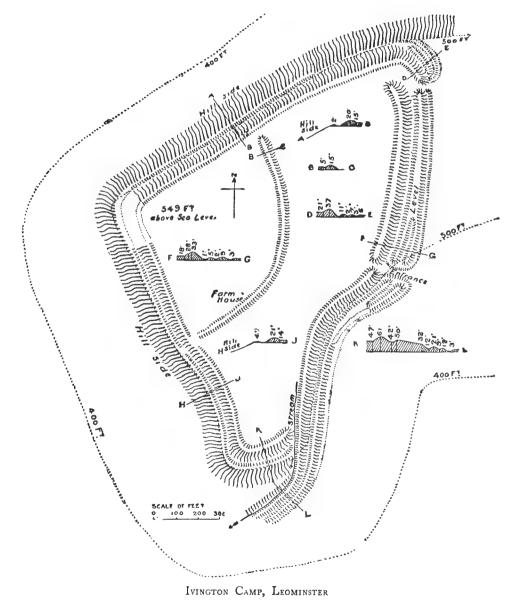
One cannot avoid the surmise that the principal guard was against an enemy on the north or west, a surmise partly strengthened by the position of the camp

in relation to the Teme on the north-east and east.

Gough refers to four entrances (apparently one at each point of the compass), but the only one distinctly evident is on the east, though certainly the gap in the rampart at the extreme north point may possibly indicate another, but the mere depressions in the bank on the south and west hardly suggest entrance ways. The slightness of the earthwork protection, absence of any considerable fosse, and finds of Roman or Romano-British relics in or near, may of course be regarded as evidence in favour of the Roman theory, but pending careful examination by the aid of pick and shovel, we cannot be sure that Brandon possesses any true claim to origin at that period.

A plan of the camp appeared in the Transactions of the Woolhope Field Club, also a sketch map showing the position of camps and tumuli to the west and north of Brandon.<sup>21</sup>

LEOMINSTER: IVINGTON CAMP.—Ivington is a chapelry of Leominster, about 3 miles south-west of the town. The stronghold occupies the western end of a swell of high land about 540 ft. above sea level, and 350 ft. above the River Lugg, which flows about a mile and a half to the east. The position is naturally defended by the fall of the hill on the north-west, west, and south-east. The entrenchments, in a fair state of preservation as a whole, but mutilated in some places, are of powerful construction, varying in strength according to the conditions of the portion to be defended. The extreme west corner has been quarried for limestone, and is now in a chaotic state, 22



<sup>21</sup> Op. cit. (1881-2). The plan given by Gough, Camden, Brit. ii, 453, is manifestly inaccurate.

The plan given in the *Trans. Woolhope Field Club* (1881-2) shows that the western corner had not then been subjected to the process of quarrying. The embankment was widened out to form a nearly circular mount of about 35 ft. diameter, and must have formed an interesting feature.

while the southern end is much overgrown with underwood, rendering it difficult to trace the lines of the original defences, which, however, appear to take the form shown on the plan; the object of the laborious entrenching was to strengthen this naturally weak spot, where, the side of the hill being

of no great steepness, an enemy might force an entrance.

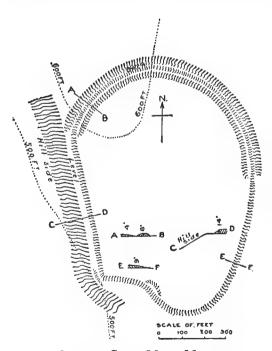
That Ivington Camp must originally have been of great strength is evident from the formidable character of the defences as they now exist, after many centuries of neglect and worse, while its curious, lunar-shaped rampart, cutting off and guarding the western portion, renders it of exceptional interest. Whether the lunar rampart is to be regarded as of the original castrametation is doubtful. Is it possibly to be attributed to the time when, according to tradition, Owen Glendower occupied Ivington? 28

To the long-drawn struggle between the Roman forces and those of Caractacus we may owe the original fortress, as its general features are com-

mon to Celtic strongholds.

MIDSUMMER HILL. See EASTNOR.

MUCH MARCLE: OLDBURY CAMP.—This remnant of a camp occupies the southern extremity of Marcle Hill, about 8 miles south-east of Hereford. The position is defended naturally by the fall of the hill, which is fairly steep upon the west, but on the east and south is only of a gentle slope. The entrenchments are all but destroyed, but may have consisted of a fosse with the ballast thrown inward to form a rampart on all sides, though the fosse and rampart are now only to be traced upon the north, cutting off the inclosure from the higher land on that side; there are, however, slight traces of the fosse and rampart upon the south-west. The scarp, which alone



OLDBURY CAMP, MUCH MARCLE

exists upon the south and much of the east side, could have formed no great defence by itself, as the fall of the hill is slight, though the camp of Dinedor, 7 miles west-north-west, also lacks the complete rampart, suggesting the possibility that in both cases that important feature of defence was omitted; it seems, however, more probable that, though once provided, the rampart has been destroyed. The position commands a view farther northeast and south-east for many miles, but not so much in other directions.

The entrance was at the northwest, and is still well marked by embankments on either side covering the approach.

OLDBURY CAMP. See Much Marcle.

<sup>23</sup> It is believed that Owen Glendower, in the height of his success against Henry IV, about 1401, took possession of this camp, and retained it, sallying forth and gaining the victory over Mortimer immortalized by Shakespeare. He is said immediately after the battle to have sent men to occupy the old strongholds of Risbury, Croft Ambrey, and Wapley; but whether they or Ivington owe any part of their defensive works to Glendower is uncertain. See *Trans. Woolhope Field Club* (1881-2), 216.

OYSTER HILL CAMP. See DINEDOR.

PENYARD CHASE. See Ross.

Pyon Wood Camp. See Aymestrey.

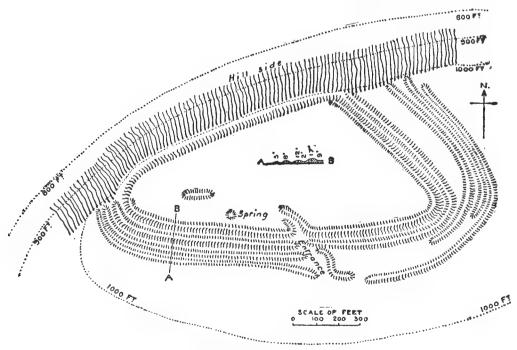
RISBURY CAMP. See HUMBER.

Ross: Penyard Chase.—A mile south-east of Ross, in Chase Wood, adjoining Penyard Park, are the remains of a camp referred to by Gough in his additions to Camden's *Britannia*,<sup>24</sup> mentioned in the Woolhope Field Club's *Transactions*.<sup>25</sup>

The work which has survived is more of the nature of artificial scarping than the usual ramparting, and is largely destroyed by cultivation. The writer in the *Transactions* states that in the approach to the camp the solid rock has in one place been cut through in ancient times to a depth of at least 12 ft. The position is close to Gatley Grove, and near the boundaries of the parishes of Ross and Walford, Penyard Park lying on the east of the camp.

ST. ETHELBERT'S CAMP. See DORMINGTON.

STAUNTON-ON-ARROW: Wapley Hill.—This fortress occupies the highest part of a hill 2 miles south-east of Presteigne, about 1,000 ft. above sea level. The position is remarkably strong, the slope of the hill falling on all sides 500 ft. to 600 ft., very steeply on the north, and more gradually on the other sides. Five ramparts with intervening fosses guard the eastern side, turning partly along the southern, on which side is the interesting entrance way, manifestly the work of Celtic hands. The plan shows this entrance with its carefully arranged protecting banks, and the oblique inturning of the inner rampart. From the entrance four ramparts extend westward, ending on the northern scarp. Along the north side a single rampart may have existed, but now it is little more than a scarp, and the fosse outside has become a terrace by the washing-down of the material above. As the



Wapley Hill, Staunton-on-Arrow

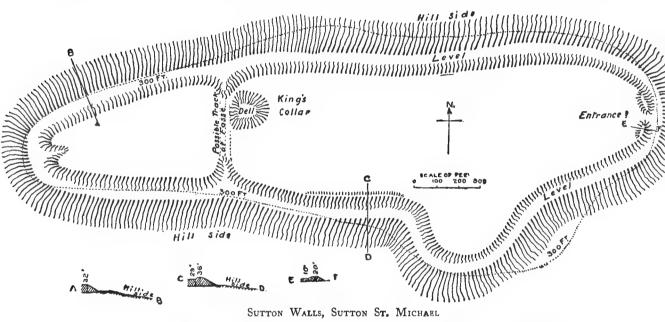
<sup>24</sup> Op. cit. (ed. 1789), ii, 449.

<sup>25</sup> Trans. Woolhope Field Club (1900-1), 200.

declivity on this face of the camp is about 200 ft. in 250 ft. very little entrenchment was here necessary. There are three low mounds, possibly sepulchral barrows, in a line within the camp, the western sufficiently distinct, but the others nearly destroyed. Near the southern base of the hill are three similar mounds placed in line from north to south.<sup>26</sup>

Wapley is in a commanding position, the view extending to the Brecon Beacons on one side, and to the Malvern range on the other; indeed, few spots in England afford so striking a prospect of hills and mountain summits. It is believed that this ancient camp was utilized by Owen Glendower in his contests with the forces of Henry IV.

SUTTON ST. MICHAEL: SUTTON WALLS.—This large stronghold is situated 4 miles north-by-east of Hereford, occupying a hill 330 ft. above sea level and 160 ft. above the River Lugg, which flows half a mile west and



south. The hill not being steep the position is but slightly defended by the slopes. The earthwork consists chiefly of a powerful scarp with a ledge below. On the south, at the section C D, is an inner rampart, and on the east is also a rampart, hence it would appear that the inner rampart was once perfect on all sides, but the summit of the inclosure being under the plough has been destroyed. The ledge at the foot of the scarp may once have been a fosse, but with the exception of a slight rise at one point there is nothing to indicate an outer bank. The 'dell' is styled on the 25-in. Ordnance Survey map 'King's Collar,' and is marked with ditch and rampart, but these do not exist; the artificial gullies north and south near this dell form approaches to the summit, but may once have been a dividing entrenchment. The scarp is mostly covered with underwood, and the edge of the summit is protected by a thick hedge.

The principal entrance was probably from the east. The north, south, and west openings through artificial gullies are probably modern farm ways.

<sup>&</sup>lt;sup>36</sup> Trans. Woolhope Field Club (1895-7), 39. Gough, in his additions to Camden's Britannia (ed. 1789), ii, 459, refers to 'a camp called the Warren or Wapley Hill,' and gives sections and an incorrect plan of it on plate xiv. The hill, being used for the purpose of a rabbit warren, is still known as the Warren.

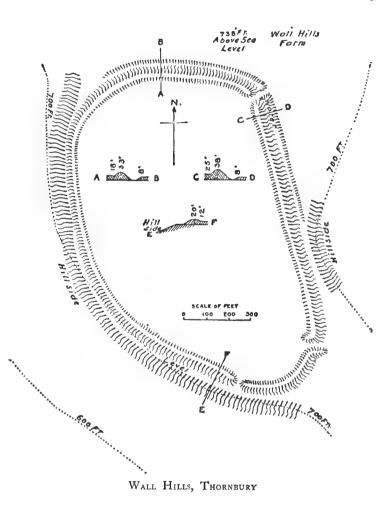
We cannot leave this interesting work without recalling the current tradition that King Offa occupied this site, and it was the scene of St. Ethelbert's murder in A.D. 792. Whether it be true that the royal Mercian residence was here cannot be certainly said, but the camp is not of a class very likely to be constructed at the time. It is often stated that the entrenchments are of Roman origin, and the name Walls is held confirmatory of the view, but here also we have no supporting evidence.

THORNBURY: WALL HILLS.—This camp occupies the highest part of a hill 4 miles north-by-west of Bromyard, and is about 740 ft. above sea level, 350 ft. higher than a stream less than a mile east, and 240 ft. above a valley

half a mile west. The position was well chosen, being naturally defended on the west and south-west by the fall of the hill.

The entrenchments consist mainly of a high and wide rampart strengthened at those points which are weaker by nature by the addition of a fosse on the outside. Though the place of a fosse is taken by a level terrace on the south-west side, it is possible there was originally a bank forming a slight fosse on the outer edge.

The inclosed area of about 25 acres is now mainly under grass, but the earthwork and hill-side on the west are covered with trees.



The only entrance which has the appearance of great antiquity is that on the south-east, where its southern side has the rampart turned outwards, forming a point of vantage to the defenders, and the northern return curved inwards.

Though there can be little doubt that Wall Hills is an earthwork of early days, it is probable that it has been in military occupation in later times, and possibly the Scottish army used the camp in 1645 after crossing the Severn at Bewdley.<sup>27</sup>

Two cannon balls have been found in the camp. See Trans. Woolhope Field Club (1886-9), 123. The same paper mentions traces of earthworks extending from the camp to Northwood, to Kyre Common, and to Collington.

WALL HILLS. See LEDBURY, THORNBURY.

WAPLEY HILL. See STAUNTON-ON-ARROW.

WHITCHURCH: GREAT DOWARD.—Upon this hill, which is separated from Little Doward Hill by a valley, and is about 62 miles south-west of Ross, is an oval inclosure, surrounded by a bank of 6 ft. to 8 ft. in height, and a fosse of corresponding depth. The inclosed area is about a third of an acre in extent, and may have been used as a cattle-keep or shelter by the Britons who occupied the well-defined camp on the Little Doward (see Ganarew). The earthwork is referred to by Gough,28 and briefly described in the Transactions of the Woolhope Field Club.29

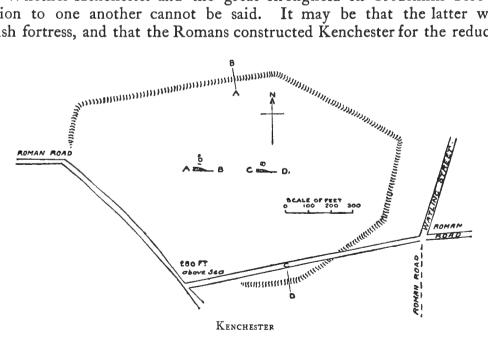
#### SIMPLE DEFENSIVE INCLOSURES

(Class C)

Kenchester.—Four and a quarter miles west of Hereford. Discoveries beneath the soil of Kenchester leave us no room for doubt that the site was occupied by a Roman or Romano-British settlement. A wall of masonry seems to have inclosed the irregularly hexagonal area, but now no sign of stonework appears, nor is there any rampart, but a simple scarping of the ground. Even when Stukeley wrote there was little more to be seen, though he showed 'the track of the Roman wall' on his plan, he found no evidence of a fosse or ditch.80

The settlement was on ground rising a little above the surrounding level, and about a mile north of the River Wye, but was not naturally protected; though standing about 280 ft. above sea level it is lower than points not far removed, especially on the north-east, where within a mile, Credenhill boldly rises.

Whether Kenchester and the great stronghold on Credenhill bore any relation to one another cannot be said. It may be that the latter was a British fortress, and that the Romans constructed Kenchester for the reduction



<sup>28</sup> Camden, Brit. (ed. Gough, 1789), ii, 448. 30 Itin. Curiosum (1776), 69.

<sup>&</sup>lt;sup>29</sup> Op. cit. (1883-5), 218,

of the enemy's stronghold, or possibly the form of Kenchester indicates its having been a British oppidum, afterwards adapted to Roman purposes.

Much remains to be said on this, the most important Roman site in the

county, in the chapter relating to the antiquities of that period. 51

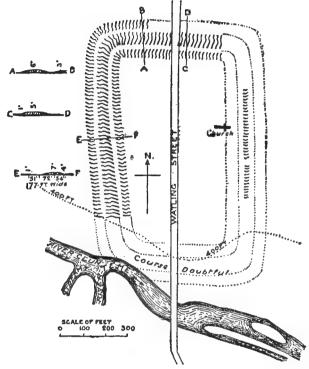
LEINTWARDINE.—This village is 6½ miles west of Ludlow. As much of interest relating to discoveries of Roman remains here will be found in the

chapter of this history describing the antiquities of that period, we confine ourselves to the defensive arrangements.

Writing in 1882, the late Dr. H. G. Bull said:—

The entrenchments . . . are still plainly to be traced, except on the southern side, where considerable alterations have been since made. They are very massive, and, where most distinct, they present the extraordinary breadth of twenty yards. . . They are still eight or nine feet above the level of the ground outside, from which it is very evident the earth has been taken to form them. These embankments . . . giving a space of about fourteen acres, including the embankments, or without them an inner area of about nine acres . . .

The fosse, or outer line of the entrenchments, almost throughout the whole extent,



ROMAN ENTRENCHMENTS, LEINTWARDINE

still forms a division of property, and thus also curiously marks out to the present day the extent of the fortifications of the old Roman town.<sup>32</sup>

Since Dr. Bull wrote destruction has been so considerable that it is in places hard to follow his description.<sup>33</sup>

The site of this small station is low on the south, only a few feet above the rivers, but it has a gentle rise of nearly 60 ft. to the northern end, affording a pleasant southern aspect such as the Romans loved.

LLANROTHAL: TREGATE CASTLE.—High on the eastern bank of the River Monnow, about 5 miles north-north-west of Monmouth, are traces of a well-entrenched inclosure, possibly an early camp. Within is Tregate Castle, built in the Tudor period, and evidently once an important residence, now used as a farm-house. The position of the 'camp' was well chosen, being on an elevated knoll commanding the river and trackways.

<sup>31</sup> There is a brief but interesting note by Mr. F. Haverfield respecting Kenchester in the Arch. Surv. of Herefordshire, published by the Society of Antiquaries in 1896.

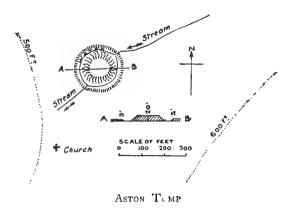
<sup>32</sup> Trans. Woolhope Field Club (1881-2), 252.
33 Uncertainty prevails as to the course of the wall on the south. The dotted lines on plan show it parallel with the northern entrenchment, but Dr. Bull considered that it was carried obliquely from west to east along the river front.

#### MOUNTS

(Class D)

See Eye. ASHTON.

ASTON TUMP.—Three miles and a half south-west of Ludlow. position occupied by the tump has no natural defence, but a moat was cut

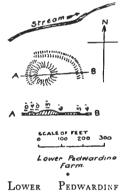


around the mount and the waters of the stream were made to flow therein, thus affording considerable protection from the east-north-east. The base of the moat is now only a few feet below the surrounding level, and practically flat, but was once much deeper, and filled with water at all times. mount is named upon the 1-in. maps of the Ordnance Survey a 'tumulus,' but its position near the church and its water moat indicate that it was constructed for defensive purposes.

Brampton Bryan: Lower Pedwardine.—This small work, 5 miles north-east of Presteigne, is probably not in its original form, or if so, was of

very slight importance. It stands upon the eastern slope of some high land, and the position had no natural defence beyond any that the stream on the north may have afforded. The earthwork now consists of a slight mount, 10 ft. above the ground on the east, cut off from the higher land on the west by a rampart. The hollow trench on the north and east has been used as a road, and may not have formed part of the defensive work, as there is no trace of its continuation south or west. We prefer, therefore, to class this as a simple mount stronghold.

Brilley: CWMMA Mound.—Three miles and a half This small work, south and south-west of Kington. apparently a castle mount, is situated in a position lacking any natural defence. The entrenchments, never of import-



MOUNT, BRAMPTON

ance, consist of a small irregular mount cut out of the slope of the hill falling towards the stream, the ballast from the moat being thrown inward to Upon the south-west a slight rampart has been heighten the mount.

made to form a bank to the moat, round which the stream may once have washed.

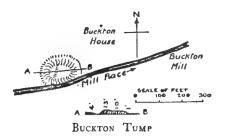
CWMMA MOUND, BRILLEY

BUCKTON TUMP.—One mile and a half south-west of Leintwardine. The position of this small work is naturally defended on the south by the River Teme. The mount is of unusual form, being oval and having the western portion higher than the rest, an arrangement which may or may not be part of the original plan. The moat surrounding the mount was evidently once much deeper, and water from the stream could either

wash round or at flood times be caught and dammed up; the eastern portion of the moat has been filled up to form a croquet lawn, and other portions are also more or less destroyed. The mill is probably of ancient

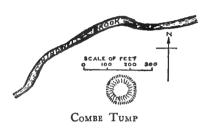
date, and the race, which is a cutting from the Teme, five-eighths of a mile west, was made both to fill the castle ditch and work the mill, a common custom with the Normans.

CASTLE FROME.—Seven miles north-west of Ledbury. A small mount formerly called Castle Trump is at the northern end of Camp Coppice. The Rev. C. J. Robinson <sup>84</sup> describing this earthwork, mentions faint



traces of a stream-fed moat around the mount, and there is a sunken way of approach of great depth. Castle Frome was granted to Walter de Laci

for his services to William the Conqueror, and it is possible that this grassy mount is the site of his keep.

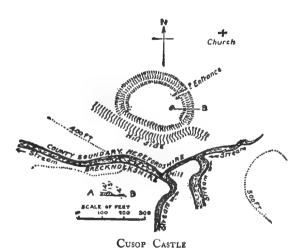


Combe Tump.—Two miles and a quarter east-by-south of Presteigne. This work stands upon land a few feet above the level of Hindwell Brook, which flows into the River Lugg. Combe Tump is named as a tumulus upon the Ordnance Survey maps, but its position on low

land, near to the river, and the absence of other burial mounds in the neighbourhood class it with the defensive mounts which abound in the district. The position commands the immediate low land on the north, west, and east. Wapley Hill Camp, probably a mighty stronghold of

an early race, and 1,100 ft. above sea level, is about half a mile to the south.

Cusop Castle.—On the border of Brecknockshire, less than a mile south-east of Hay, some 450 ft. above sea level, and 40 ft. to 50 ft. above the three streams which meet below and flow west into the River Wye, is the earthwork known as Cusop Castle. The position is naturally defended on the south by the fall of the ground to the streams. The entrenchment consists of a fosse, the ballast from it being thrown



inward to form a rampart, except upon the south, where, the hill-side forming a natural protection, a scarp only has been cut. The inclosed portion stands only a few feet above the ground outside, and no sign of masonry is visible, but Duncumb says, 'in the centre are quantities of loose

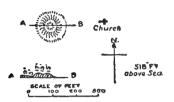
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<sup>&</sup>lt;sup>34</sup> The Castles of Herefordshire (1869), 62, and see Trans. Woolhope Field Club (1893-4), 184. Mr. Robinson also mentions a deed (probably of the 12th or 13th century) wherein are described certain lands 'infra ballivam castri de Froma Castri.'

stones, which are the only remains of the original mansion.' Probably the 'mansion' was little more than a Peel Tower, or some such structure. There is a modern approach from the east, which may occupy the position of the original entrance.

No less than nine mount, or mount and court strongholds, stand within 4 miles of Cusop, ample evidence of a period of constant contest.

Downton-on-the-Rock: The Tump.—A mile and a half east-by-south of Leintwardine. This small castle mount stands upon ground about 540 ft.



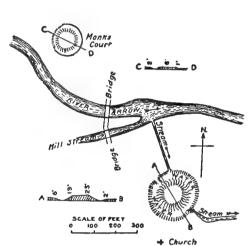
Tump, Downton-on-the-Rock

above sea level, and 150 ft. above the River Teme. The position has no natural defence, and the entrenchment is not in a perfect state of preservation, but apparently consisted of a small mount either entirely surrounded by a fosse or only cut off from the high land on the west by a ditch; but the more probable theory is that the ditch was complete, and much deeper than now. The

depression upon the summit may be the work of excavators, or the site of a tower or tree. The situation of the mount near the church and river indicates that its object was for defence. The nearness of the earlier

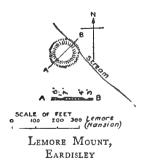
stronghold on the south-south-east, called here the 'camp' to distinguish it from this mount, should be noted.

EARDISLAND MOUNTS.—Four and a half miles west of Leominster. The castle mounts are in close proximity to the River Arrow, the larger and more important work being on the southern side of the stream, the smaller on the northern. The work upon the south is without doubt a castle mount; it is of fair circumference, averages 22 ft. in height, and with the moat much deeper, as it was in its original condition, would have been a place of considerable strength. The moat is fed by a cutting from the



EARDISLAND MOUNTS

river, which, however, may or may not have been the original source of supply. The small mount on the north of the river is now insignificant, but with its most complete, as originally, it may have been a useful adjunct



to the southern castle. Near the castle mounts of Shobdon, 3 miles north-west, and Walford, 8½ miles north, are found similar smaller mounts.

EARDISLEY: LEMORE.—Three miles south-by-east of Kington. We should include this small circular inclosure as a homestead moat (Class F), but that there is the faint trace of a rampart both inside and out. Whether ramparts existed or not, without doubt the ditch, now slight, was once deeper, and the water from

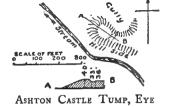
<sup>&</sup>lt;sup>85</sup> J. Duncumb, Hist. and Antiq. of the County of Hereford (1812), ii, 286; Trans. Woolhope Field Club (1886-9), 360.

the stream was caused to wash round the platform. The work is locally said to be the site of a castle.

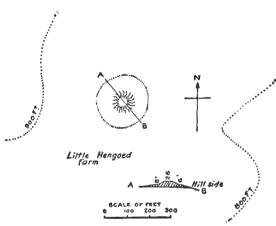
EYE: ASHTON CASTLE TUMP.—About 4 miles north-by-east of Leo-This mount is the north-west ending of a bank, some 350 ft. above

The position is naturally strong, except on the south-east. The work may or may not have been used for defensive purposes; there is little artificial trenching, the fosse on the south-east is slight, and there is very limited space on the summit of the In any case, the work is of little importance. Ashton 'Camp' lies half a mile to the south-east.

HUNTINGTON: LITTLE HENGOED.—Four and a half miles south-west of Kington. This small mount,



or 'turret tump,' as it is named upon the Ordnance Survey maps, stands about 150 ft. above the River Arrow, which flows half a mile south and The work consists of a mount only, small in circumference but of There is no fosse or moat, but the slight appearance of a



moderate height.

LITTLE HENGOED TUMP, HUNTINGTON

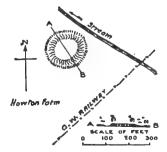
larger base, as shown by the dotted lines. The mount may have appertained to a castle, but its purpose is doubtful.

Kenderchurch: Howton Mound.—Nine miles south-west of Hereford. This mount or platform stands upon the lowest land in the neighbourhood, the position having no natural defence. The work consists of a raised platform 9 ft. high above the lowest part of the trench which surrounds it, and this trench is now only about a foot deep and hardly to be traced upon the east

Though the work may have been one of the numerous castle mounts locally called 'tumps,' it appears as much like the site of a moated homestead, perhaps the original Howton Farm. Tradition says it was a burying-place after some engagement at Kilpeck Castle, but there is no fact to support this assertion. It was partially opened in August 1906, but with no definite result.

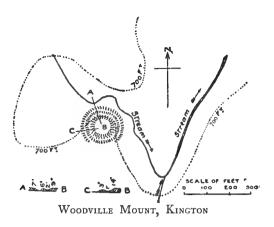
KINGTON.—Little beyond the name 'Castle Hill' exists to suggest that a castle occupied the site. The Rev. C. J. Robinson was inclined to believe that a mount encircled by a deep trench existed from 'very early times'; but its close proximity to the church suggests origin in later days. 86

KINGTON: WOODVILLE.—A mile and a half south-south-east of Kington. This work stands upon land about 700 ft. above sea level, the position having no natural defence except that the ground around is



Howton Mound, Kender-CHURCH

of a somewhat marshy nature. The earthworks are in a rough and imperfect state, but appear to have consisted of a circular platform surrounded by a



moat, banked on the outside most of the way round, perhaps to obtain a water level. The work may be that of a castle mount, but it is as likely to have protected a homestead.

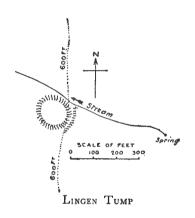
LAYSTERS TUMP. — Five miles north-east of Leominster. The position has no natural defence, but the adjoining field has some signs of entrenchment. Forty or fifty years ago the mount was partially excavated, thereby materially injuring the eastern side. The parish church stands about

100 ft. to the north. This 'tump' is one of the few formed in the eastern portion of the county.

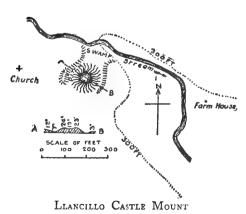
LINGEN TUMP.—Three-quarters of a mile north-east of Lingen Castle, and  $4\frac{1}{2}$  miles north-east of Presteigne. The tump is named on the

Ordnance Survey maps a tumulus; but as it stands near a stream, and is cut off from the higher land by a moating (a not unusual custom in the forming of defensive mounts), it is more likely to have been used for a border tower of wood or stone as an adjunct to the larger work of Lingen Castle. Small mounts are also found near the castles of Shobdon and Eardisland in this county.

LLANCILLO.—Twelve miles south-west of Hereford. This castle mount is formed out of ground sloping north and east, 40 ft. above the River Monnow, which flows half a mile to the



south-east. The position is slightly defended on the north by a stream and its swamp. The moat which now protects the north-west and south-east only once probably existed upon the south-west also; upon the north-north-east there was no ditch, but the ground there was levelled

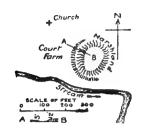


37 Trans. Woolhope Field Club (1890-2), 281.

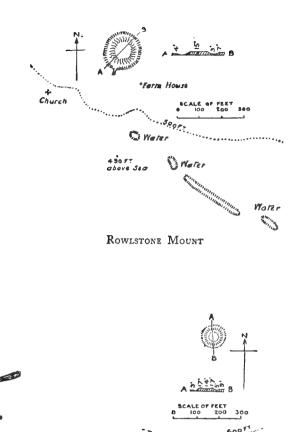
or hollowed to catch the water from the stream. The foundations of a stone wall round the summit of the mount are still visible.

Mansell Lacy.—Six miles north-west-by-west of Hereford. This small inclosure stands upon low ground, with the land on the north much higher. The position is slightly defended by the stream on the south and the marshy nature of the ground upon the immediate north and east. The entrenchment consists of a

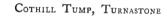
The mount has been mistaken for a burial tumulus.

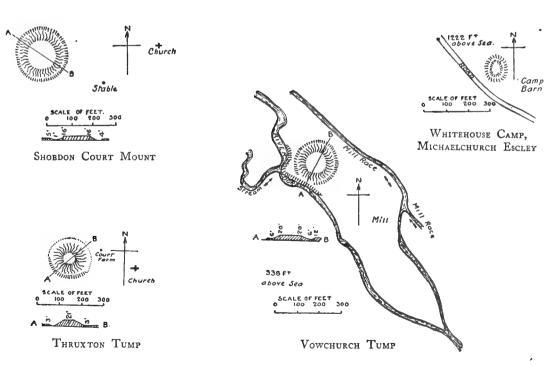


CASTLE MOUNT, MANSELL LACY



Castle Mount, Staunton-on-Arrow





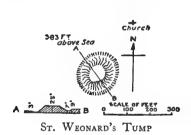
moat cutting off the eastern ending of a slight bank, the ballast from the moat being thrown on to the platform thus formed. The work, evidently not now in its original and perfect form, may be the remnant of a castle mount, or possibly of a homestead moat.

MICHAELCHURCH ESCLEY: WHITEHOUSE 'CAMP.'—Four and a quarter miles north-north-west of Longtown. This small inclosure stands upon a ridge of hills 1,222 ft. above sea level, 350 ft. above the River Monnow, which flows half a mile westward, and 450 ft. above the Escley Brook, three-quarters of a mile east. The position, though a high one, has no immediate natural defence, and the work, which is slight, may be that of a castle, but is as likely to have defended a homestead.

PEDWARDINE (LOWER). See BRAMPTON BRYAN.

Rowlstone Mount.—Eleven miles south-west of Hereford. This mount stands near the church upon ground 500 ft. above sea level, in a position having no natural defence. The earthwork consists of a moat with the earth therefrom thrown inward to form a circular mount; probably the moat once held water all round. The outlet from the moat, together with the ponds and ditch upon the south-south-east, may indicate the existence at some date of further inclosures, but a farm-yard on the south has destroyed all traces if such existed. Many of these mounts are locally named 'tumps,' and regarded as burial mounds, but since in most cases they are solitary and stand near the church, and often near a river, they would appear to have been rather mounts for defensive purposes than for burial; at the same time bodies may have been interred near the top of some of these mounts.

ST. WEONARD'S TUMP.—Six and a half miles west of Ross. The mount is on a hill rising from 90 to 190 ft. above the land on all sides within a mile, but the position has no natural defence, as the fall of the hill is gradual.



The entrenchments consist of a moat with the ballast thrown inward to form, or help in forming, a mount now 18 ft. to 25 ft. above its moat. The work is in poor preservation; excavations were made on the south-east side of the mount about 1840, the earth not being replaced, and the cottagers, following the evil example set them, have more or less filled up the ditch. Special interest attaches to this mount, as remains

discovered within it leave little room for doubt that long ere it supported a tower of defence it was a prehistoric burial tumulus.

Shobdon Court Mount.—Six and a quarter miles north-west of Leominster. The mount stands within the park attached to the mansion of Shobdon Court, on ground 540 ft. above sea level, in a position having no natural defence. The work consists of a mount surrounded by a fosse of considerable base, but in its present state only 16 ft. high. A small mount 12 ft. high and without a fosse stands 1,000 ft. away on the south-south-east; other such small mounts are found near to the castle mounts of Walford and Eardisland. These smaller mounts may be burial tumuli, but as no other tumuli exist in their neighbourhood it is unlikely; probably they had some connexion with the greater defensive mounts near.

STAUNTON-ON-ARROW.—Five miles east-north-east of Kington. The castle mount stands upon ground 400 ft. above sea level, and 30 ft. above the River Arrow, in a position naturally defended on the south-west by the streams and slope of the land. The earthworks consist of a mount cut off from the surrounding ground by a fosse excepting on the south-west, where the fall of the hill rendered such protection unnecessary, and has been scarped to form a shelf instead of a fosse. The summit of the mount is level, and measures about 60 ft. in diameter. Upon the south-east is a rough natural platform which may once have acted as a bailey, but there are no artificial entrenchments.

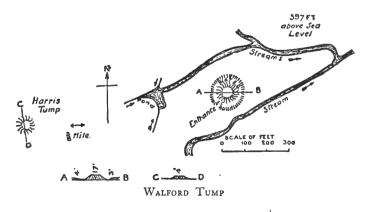
Thruxton Tump.—Six miles south-west of Hereford. The castle mount stands upon ground about 325 ft. above sea level, with the land on the north slightly lower. On the south-west is a gentle descent towards a stream, beyond which the land rises gradually. The entrenchment consists of a mount once surrounded by a fosse, but as the work stands close to the house the farm-yard and buildings have encroached upon the fosse, which is now hardly to be traced, and the sides of the mount are much broken. The summit is roughly level, measures 45 ft. in diameter, and is 21 ft. above the lowest part of its base, but when the fosse was in perfect condition no doubt it was deeper by 4 or 5 ft. The mount is named by the Ordnance Survey upon the 1-in. scale map published 1893 a 'tumulus,' but its position near the church, on low land and with no other mounts near, indicates that it was erected as a defensive work, though an interment may have taken place near the top.

TURNASTONE: COTHILL TUMP.—Eleven miles west-by-south of Hereford. This very small inclosure has no natural defence and the entrenchments are simple, consisting of a moat, with the ballast thrown inward to form a rampart, surrounding a platform artificially raised above the adjoining ground. The work is apparently that of a mount castle of the class furnished with ramparted summits, such as at Llancillo, 7 miles south-south-east, and the mount of the great work upon the Malverns.

Vowchurch Tump.—Ten miles west-by-south of Hereford. The position has practically no natural defence except the slight protection afforded by the River Dore. The entrenchments consist of a moat with its material

thrown inward to form a small mount, the summit of which is level and measures about 90 ft. in diameter. Upon the south and west the hill-side has been scarped to complete the circle of the mount.

WALFORD TUMP.— A mile and a quarter south-west of Leintwardine. This small mount

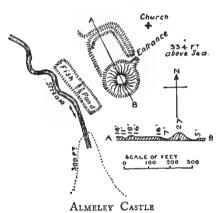


stands within the protection afforded by several streams which unite here and flow into the River Teme. The mount is now only 17 ft. in height above the moat, and has a level summit 36 ft. in diameter. No doubt the

moat in its perfect and original state was much deeper. Three-eighths of a mile west-by-south, in a field called 'Harris,' is a small mount, as shown on the plan; the top of it is level and measures 24 ft. in diameter. This and several other mounts in the neighbourhood are named on the Ordnance Survey as 'tumuli,' but most appear to have been made for defensive purposes.

# MOUNTS WITH ONE OR MORE ATTACHED COURTS (CLASS E)

ALMELEY CASTLE.—This, one of the long series of border strongholds, is situated nearly 4 miles south-east of Kington, and is formed on a tongue of land projecting southward from higher ground. The position is to a small extent defended by nature upon the west and south-west by the stream, and the slight fall of the land towards it. The entrenchments consist of (1) a

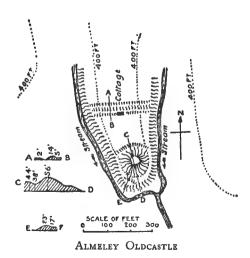


mount some 27 ft. above the lowest part of its surrounding moat; (2) a square court upon the north-west, defended upon two sides by a ditch and rampart, now almost levelled; upon the west side there was apparently no ditch, but probably the rampart was once completed there. This appears to be of later construction than some other mount fortresses, but whether it dates from so late a period as Stephen's wars, as has been suggested, is doubtful. It is mentioned in a mandate of King John in 1216.88

Another earthwork of the same class, known as Oldcastle Twt, within half a mile on the north-west, is thought to be of earlier date.

ALMELEY OLDCASTLE.—This work stands within half a mile of Almeley Castle, which lies to the south-east at about 70 ft. lower level. Oldcastle Twt (or Toot, as it is frequently called) occupies and is formed out of the south

ending of a narrow tongue of land between two streams, about 400 ft. above sea level, with higher land upon the north, and lower upon the south. The position is naturally defended on the south by the low land, and to a certain extent on the west and east. The entrenchments consist of a mount and court. The form of the mount and south portion of the work has been slightly altered, partly owing to the construction of a foot-path. The court is separated from the mount by a fosse, and is defended from the high land on the north by a fosse and rampart. There is

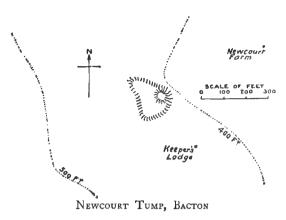


88 See Trans. Woolhope Field Club (1902-4), 235.

no visible trace of masonry, and such may not have existed, as this work may have been disused at an early period in favour of Almeley Castle.

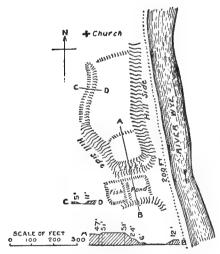
BACTON: NEWCOURT TUMP.—This small earthwork, possibly that of a castle of Class E, stands upon the slope of a hill 4 miles north-east of Long-

town and about 120 ft. above the River Dore, which flows less than half a mile on the east. The position is naturally defended on the east by the fall of the hill, and the entrenchments appear to consist of a tiny mount, with a small court on the west defended by a scarp; the work is curious and of little importance, nor could it ever have been of much consequence, even if well stockaded with timber or walled with stone.



Brampton Bryan Castle.—The castle is situated a little over 2 miles west-by-south of Leintwardine, and stands in and forms part of a pleasure garden belonging to the adjoining mansion. The story of the castle appertains to another chapter of this History; here it is sufficient to say that the traces of earthworks indicate that the original formation was that of a small mount and court stronghold. The mount is now only 10 ft. above the court; the latter was rectangular, but its protective works have been destroyed, only a scarp remaining in parts. The Rev. C. J. Robinson considered it likely that the foundation of Brampton Castle should be assigned to the later years of Henry I.<sup>39</sup>

Bredwardine Castle.—The castle was on a natural hill rising about 50 ft. above the River Wye, 6½ miles north-east of Hay. The position



BREDWARDINE CASTLE

is naturally defended on the east by the river, and by the fall of the land on east, south, and south-west. The Rev. C. J. Robinson says:—

Bredwardine Castle was most aptly situated alike for levying blackmail and defying retaliation. . . . The fortress, well victualled, might have 'laughed a siege to scorn.' In front, at the foot of a steep escarpment, flowed a rapid river which it was impossible to cross except by the ferry, and on the landward side a moat, broad and deep, formed the defence, strong in itself and further strengthened by a wild and rugged country which, thinly peopled with dependent vassals, stretched southward and westward to the Black Mountains.<sup>40</sup>

Little trace of the earthworks is left beyond the slopes of the castle site, the scarping of the hill-side on the south, and a fosse, now shallow, upon the west, where

the high land continues. Possibly once a deep trench cut off the southern ending of the hill to form a keep mount, and on the north, where there is

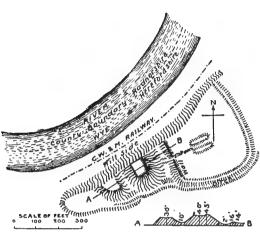
39 Castles of Heref. (1869), 8.

40 Ibid. (1869), 19.

a rough scarp, a more definite entrenchment once existed, but a house and garden occupy the spot. There is the appearance of masonry foundations towards the south-east, no doubt those of the Vaughan family mansion, built about 1640.

CASTLETON (OLD). See CLIFFORD.

CLIFFORD CASTLE.—This interesting border stronghold is situated 2 miles north-east of Hay and stands upon a red sandstone eminence com-



CLIFFORD CASTLE

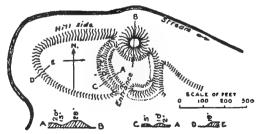
manding the River Wye, which protects it on the north, while a deep ravine communicating with the river guards the southern and eastern sides. The earthworks consist of: (1) A mount about 85 ft. above the Wye, the north-west side is a natural steep scarp (of late years cut more sharply for the making of a railway) and the south-east side is also more or less natural. Upon this mount are the remains of a stone keep, to be referred to in another chapter of this History; (2) a bailey, or court, on the north-east, the entrenchments of which are not in a good state

of preservation; the side above the river appears to have depended for protection upon the natural scarp only. Here are two parallel ramparts in rough condition and of uncertain purpose; (3) a platform on the south-west, the end of the natural bank left when the ditch was cut in forming the mount; this may or may not have been used as part of the castle. Domesday leaves little room for doubt that we owe Clifford Castle works to William Fitz Osbern—'Willelmus comes fecit illud in wasta terra.'

A plan is in the Transactions of the Woolhope Field Club (1886-9), 368, and a descriptive article is in G. T. Clark's Mediaeval Military Architecture, ii (1884).

CLIFFORD: OLD CASTLETON.—This stronghold is situated 4 miles northeast of Hay, and formed out of the north ending of a ridge of land which

rises towards the south-west. The position is defended on the north generally by the River Wye. The entrenchments are in a fair state of preservation, and consist of: (1) A mount formed by the cutting off of the extreme end of the hill by a fosse, the ballast from which was thrown up to heighten the mount. (2) A horseshoe-



OLD CASTLETON, CLIFFORD

<sup>41</sup> Sc me what the same feature is found at Barton Seagrave in Northants and Clavering in Essex.

<sup>&</sup>lt;sup>42</sup> Similar natural tables were left at Stanstead Montfitchet in Essex, 'Caesar's Camp,' Folkestone, in Kent, and at other places.

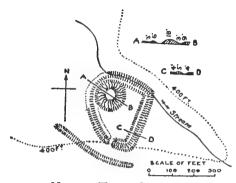
<sup>43</sup> See 'English Fortresses and Castles of the Tenth and Eleventh Centuries,' by W. H. St. J. Hope in Arch. Journ. 1x, 72-90 (1903).

shaped base-court upon the south defended by a fosse and rampart not now in perfect condition. (3) An outer court on the west defended by a scarp, along the summit of which doubtless a wall or timber stockade was placed.

On the south-east of the base-court the land falls gently but does not appear to have formed a fourth inclosure. This and nine other mount strongholds within 4 miles testify to the dangerous exposure of the district to incursions from the wild west.

CLIFFORD: NEWTON TUMP.—This interesting little work, situated 4 miles east-north-east of Hay, stands upon ground falling gently towards the north-

north-west, about 400 ft. above sea level. south-south-west the land reaches the height of 1,000 ft. above sea level. The entrenchments are now in a weak state, as will be seen by the sections, but no doubt they were better defined in their original condition. The mount is small in circumference and only 18 ft. above the deepest part of its surrounding moat, with a summit uneven in surface. The court is defended by a moat and rampart, but the latter is now wanting on the west side. The stream, or what would be a stream under heavy rains, apparently

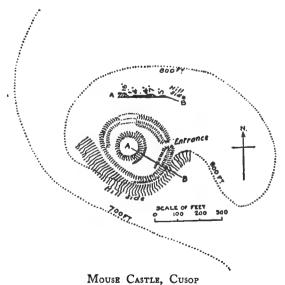


Within a mile to the east and

Newton Tump, Clifford

flooded the moats when they were perfect. The outlying trench upon the south-west, now only about a foot and a half deep, may or may not have formed part of the original works. There is some stone on the mount, perhaps the remains of masonry.

Cusop: Mouse Castle.—This little earthwork, situated a mile and a quarter east of Hay, is of somewhat unusual form, and, unlike most of the class, which are upon low lands, this Castle Tump, as it is called locally, stands upon the highest part of a hill, 800 ft. above sea level. A glance at the levels



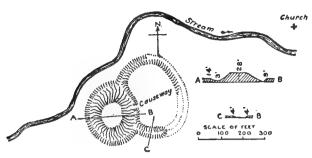
44 Castles of Herefs. (1869), 40.

given in the plan will show the steepness of the hill on the south and west of the work, affording great protection there; while the north and east sides are slightly aided by lesser slopes. The Rev. C. J. Robinson mentions Mouse Castle as 'perhaps the strongest in the county.' 44 The mount is now about 16 ft. high, the sides being very steep and rough, with a fosse upon the east or weaker side.45 The court surrounding is wider upon the east, and its defences vary considerably in strength according to the requirements of each portion to be defended.

<sup>45</sup> The fosse may possibly have been continued completely around the mount.

Dorstone Castle.—About 5 miles east-by-south of Hay are remains which indicate the existence of a Norman stronghold of the mount and court type, but lacking a feature common to most of this class, a rampart round

the inner edge of the bailey, or court moat.



DORSTONE CASTLE

Possibly the moat or fosse was considered sufficient defence; certainly no trace of a rampart exists, and previous writers have spoken of Dorstone earthworks as consisting of simply a mount, overlooking the evidence of the existence of a bailey. The position occupied has no natural defence save the protection afforded by the stream from the south-west along the

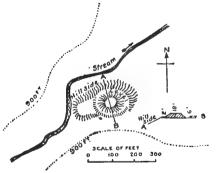
northern side, and reliance must have been placed on the strength of the works. The mount rises from 25 ft. to 30 ft. above its fosse, which, as the plan shows, was continued completely around it, joining the fosse of the bailey. The summit of the mount is level and measures 108 ft. by 84 ft. No masonry remains, but it is possible that here, as in so many places, a shell keep of stone may have succeeded the timber stockade which once crowned the summit.

This seems to have been one of a chain of border strongholds extending from Clifford Castle to Snodhill Castle, the fortified farm-buildings at Urishay, and southward through Ewyas Harold to the important equilateral defence of Skenfrith, Grosmoat, and Whitecastle.46

Dorstone: Mynydd-Brith.—This small stronghold is situated about 3 miles east-by-south of Hay, and is naturally defended upon the north and east by the fall of the hill. All that we now see is a small mount, cut

off from the higher land south and west by a moat, the ballast from which has been added to the natural knoll (the latter being scarped on the north and east). Upon the west is a space which may have served as a court, the north and west sides having a natural fall to the stream, while there is the trace of a scarp upon the south.

A quarter of a mile south-by-west is another mount castle, called Nant-y-Bar, on ground considerably higher. There are eight other mount castles within 4 miles.



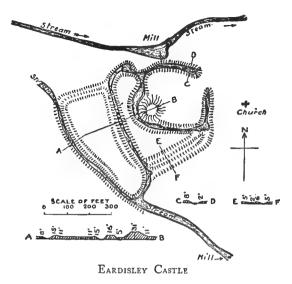
MYNYDD-BRITH, DORSTONE

EARDISLEY CASTLE.—The village and castle of Eardisley lie 4½ miles south-east of Kington, on land about 240 ft. above sea level. The stream extending on the northern side and the arm of it flowing from northwest to south-east afforded considerable natural protection to the site. The plan can only be regarded as approximately correct, as the remains are in somewhat chaotic condition. A small mount 20 ft. to 30 ft. high, with a level summit 42 ft. in diameter, is the leading feature. On its north-east is a

base-court, roughly horseshoe-shaped, defended by a water moat. The long inclosure on the west was once defended with a moat and rampart on all sides, and between it and the mount is a singularly-shaped court. A farmhouse and buildings, erected in the base-court, have added to the destruction of the

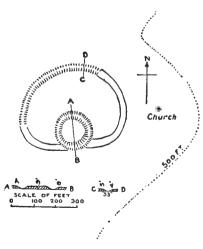
traces of the old work, and no masonry is visible. The water from the streams filled the moats efficiently, and now turns two mills, one on the north, the other on the south.

We learn from Domesday that in the days of Edward the Confessor Eardisley (there spelt Herdeslege) was in the hands of Earl Edwin, and at the period of the Survey was one of the estates of the Norman Roger de Laci. No castle is referred to, but una domus defensabilis (a house capable of defence) is mentioned. No antiquary viewing the earthworks,



especially the odd shape of the court west of the mount, can doubt that the whole castrametation has been altered, and that probably a mount stronghold with its attached horseshoe-shaped court has been dumped upon or within an earlier work. It is probable that the domus defensabilis occupied an earlier work, the mount and court structure being erected subsequently to the period of Domesday (1086). A paper on 'Eardisley and its Castle,' written by the Rev. R. Hyett Warner, appeared in the Transactions of the Woolhope Field Club.<sup>47</sup>

EDVIN RALPH.—This stronghold, which we must include in Class E, though its present condition hardly warrants so doing, is situated under 2 miles north-north-west of Bromyard, upon ground about 520 ft. above sea level, with no great variation in the heights of the land round. The position has no natural defence, except that the ground is inclined to be swampy.



EDVIN RALPH CASTLE

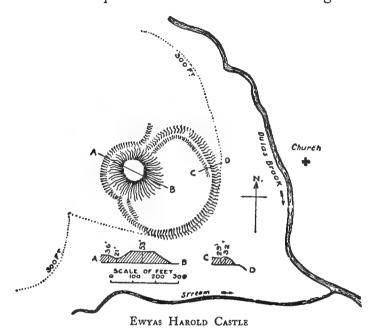
The entrenchments are not in a perfect state of preservation, but appear to have consisted of a mount, and one or more large inclosures. The mount is of small size, and is practically not raised above the natural level; possibly the ditch was once much deeper, and contained a larger quantity of water than now. Upon the north and north-west are traces of moating, apparently forming a court or two courts, as at Kingsland, 12½ miles west-by-north, but the exact form is not easy to determine.

EWYAS HAROLD CASTLE.—This earthwork is situated 10 miles south-west of Hereford, and stands upon a tongue of land

<sup>47</sup> See Trans. Woolhope Field Club (1902-4), 256.

projecting towards the south-east, 80 ft. above the streams shown in plan, at the point where they unite, but with much higher land west of the work.

The position is partially defended on the east and south by the fall of the hill, but is naturally weak on the west, where the land continues to rise, hence it is upon that side we find the strong mount placed. The entrench-



ments consist of a mount, some 53 ft. above the lowest part of its base, protected by a ditch on its north-west side; secondly of a base-court or bailey of considerable size, defended by a steep scarp, possibly once strengthened throughout by a stone wall or rampart, remains of the latter existing in parts as shown. The castle has long since been robbed of all the masonry which once replaced its original timber walls. Clark gives a description

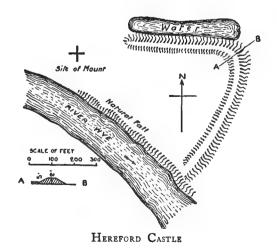
of the works and states: 'There are some mounds between the castle and the brooks, possibly thrown up on the occasion of some attack by the enemy.'48

Ewyas Harold Castle is of special importance to antiquaries and historians who are interested in the question of the date of mount and court strongholds, for it is one of the very few such earthworks proved to have existed before the Conquest. In Domesday we read of 'castellum Ewias,' that William Fitz Osbern 'hoc castellum refirmaverat.'

Mr. J. H. Round has shown the identity of the castle referred to in Domesday with Pentecost's mentioned in the Saxon chronicle under the date

Thus we have evidence of the existence of Ewyas in the time of Edward the Confessor, in whose reign probably it was erected.

HEREFORD: THE CASTLE.—It is greatly to be regretted that so little remains to this day of the castle of Hereford, 'one of the strongest, most advanced, and most important fortresses upon the Welsh March, and one which, being posted in a very fertile and open district, was peculiarly offensive to, and very liable to attacks of, the Welsh people.'50 The few remains



49 Feud. Engl. 324.

<sup>48</sup> Mediaeval Military Architecture (1884), ii, 41. 50 Clark, Mediaeval Military Architecture (1884), ii, 115.

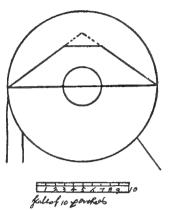
left stand upon ground but little above the River Wye, which defends the south-western side. The exact details of the entrenchments in their original state cannot now be determined from the traces left, but fortunately extant records and the view given by Speed indicate the lines. All we now see is part of the rampart which defended the court, or bailey, with a moat on its northern side. The rampart is now used as a promenade, the whole inclosure being laid out as a public pleasure ground. The rampart may have returned towards the north-west and the moat continued round the whole work

excepting where the River Wye, on the south, and a small stream on the east, rendered it un-

necessary.

There is now no mount or keep, but a second inclosure containing the keep mount once existed beyond the western constricted end of the court. The mount was conical, wholly artificial, surrounded by its own circumscribing water-filled moat and provided with a flat summit to accommodate the shell-keep of timber for which stone was subsequently substituted.

That the mount was mainly composed of gravel is proved by the entry in County Sessions Records, 1653, 'The gravell of the castle mount hath been disposed off by order of sessions.' The diameter



'GROUND-PLOT' OF HEREFORD

CASTLE

and position of the great mount are placed beyond doubt by a most interesting document, reproduced by the Woolhope Club, entitled 'Ye Ground-plot of ye Castle of Herifford,' dated 1677. In addition to the figure of 'the hill which ye Great tower stood on,' here reproduced, the ground-plot shows the court with a round mount in the north-east corner, and another, square, at the south-east angle.<sup>52</sup>

Unfortunately the ground-plot does not tell us the exact height to which

Rodnord Rodnor

HUNTINGTON CASTLE

Trans. Woolhope Field Club (1883-5), 162.

the mount was reared, but it must have been of considerable altitude. The circle in the centre of the plan shows the area of the flat summit of the mount.

HUNTINGTON CASTLE.

This stronghold is formed from a natural hill, 3½ miles from Kington, on ground rising towards the west and southwest. The mount rises at an acute angle from its outer fosse and is heightened by means of the ballast thrown therefrom, the

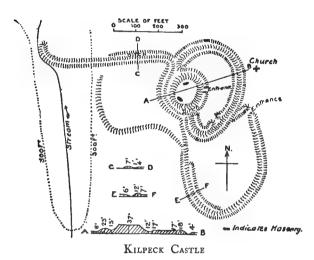
59 Op. cit.

summit being unusually pointed. There is no fosse between the mount and its base-court.58

The base-court, or bailey, is strong, and has remains of ancient stonework on the north side. The outer inclosure, probably never of great strength, is now protected by little more than a slight escarpment, and its defences are destroyed for the greater part. The entrance to the keep mount was probably from the walls of the court as at Eye, Suffolk, and elsewhere. It will be noted that the whole position was protected by the stream and natural fall of the land on the north and west.

KILPECK CASTLE.—This stronghold, situated 7 miles south-west of Hereford, is a typical example of early Norman defensive work, depending originally wholly on earthen entrenchments and timber walls, such as we describe at the commencement of this section.

The material of which the mount is formed having little tendency to slip, the slopes are steep, and the same retentive power may have enabled the builders to substitute stone for timber earlier than was usually the case.



the fragments of masonry of a shell-keep which remain appear to be of the 13th century, and probably the timber lasted till then.

The plan shows the arrangement of the castrametation—the conical truncated mount, with its surrounding fosse, varying from 20 ft. to 30 ft. in depth below the summit of the mount, and from 5 ft. to 9 ft. below the level of the adjoining base-court on the east—the base-court protected by a rampart some 18 ft. above its outer fosse, and the second,

or outer court, now, owing to modern destruction, retaining only a portion of its rampart in addition to its fosse.

An inclosure adjoining the fosse of the mount on the west side will also be noted; it retains its rampart and fosse on the north, but shows now only a scarp on the south and west.

There are traces of a platform 120 ft. north-west of the castle which may have been a defended inclosure of oval form, 300 ft. by 150 ft., but the tangible evidence is slight.54

Immediately west of the castle is a stream in a deep hollow which no doubt added to the protection of the site. Traces of dams across the hollow indicate either fishponds or, as G. T. Clark thought, a means of creating a series of long and deep lakes rendering approach from the Welsh borders difficult and hazardous. 55

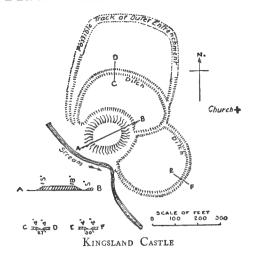
Kingsland Castle.—At a distance of a little over 3 miles northwest of Leominster is the parish church of Kingsland; 300 ft. west of the

55 Mediaeval Military Architecture (1884), iii, 163.

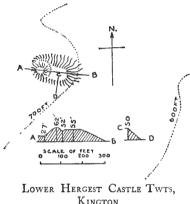
<sup>53</sup> We are inclined to think the absence of a fosse between mount and court indicative of a comparatively late date of origin of the earthwork, or of an alteration of the original plan.

54 See plan and description in *Trans. Woolhope Field Club* (1886–8), 144.

latter are the remains of the castle, consisting wholly of earthworks; the masonry, if ever used, having long since disappeared. The position has no natural defence, save that slight protection is afforded by the stream upon the southwest. The keep mount now rises only 18 ft. above the lowest part of its moat, but the latter was originally much deeper and supplied with water from the stream, which also fed the moats surrounding the courts. The river itself no doubt protected the south-west side of the stronghold. As the plan shows, there were



three courts or baileys, but a large portion of the track of the northernmost defences can hardly be traced. There is no evidence of earthen ramparting, and it is possible that defences of wood or stone stood on the inner verge of the moating.56

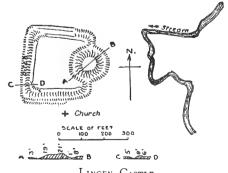


KINGTON: LOWER HERGEST CASTLE Twrs.—This work is formed of a natural knoll, a mile and a half south-west of Kington, and stands upon land 700 ft. above sea level and about 200 ft. above the River Arrow which flows a quarter of a mile east. position is naturally defended west and south by the fall of the knoll. The actual entrenchments are very slight; there is a fosse cutting off the south-west portion, the earth from which has been thrown inward to form the mount; the south side also may have been

scarped, but it is difficult to determine whether the scarp is natural or artificial. It appears as if the attempt to form a castle mount here was abandoned before completion.

LINGEN CASTLE.—This stronghold is situated 3½ miles north-east of Presteigne and stands upon low ground near a stream on the east.

The entrenchments are for the most part in a fair state of preservation, and consisted of: (1) a mount some 20 ft. above the present depth of its surrounding moat, roughly level on its summit, though the north-eastern portion is higher; (2) a court or bailey on the west, of rectangular form, apparently once defended by a fosse and inner rampart; on the south, the lower side, a second rampart formed a bank to the moat. The western defence



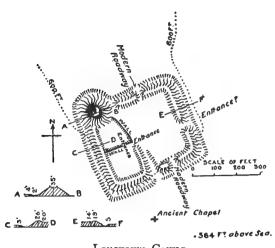
LINGEN CASTLE

241

<sup>56</sup> Leland, writing about 1529, says: 'Constant fayme sayth that King Merwald sometymes lay at this place.' The Rev. C. J. Robinson adds 'the meadow adjoining the Castle and asserted to have been the burial-place of the Saxon king, still bears the name of Merwold Croft.' Castles of Herefs. (1869), 85.

to this court is now hardly to be traced, and the inner platform has been much dug about.

Longtown Castle. 57—This border stronghold, once of great importance, is situated 13 miles south-west of Hereford. It stands between, and 100 ft. above, the River Monnow, which flows a quarter of a mile east, and the



LONGTOWN CASTLE

Olchon Brook, a quarter of a mile The land rises on all sides, except on the south, the Black Mountains, a mile and a quarter to the west, reaching the height of 1,750 ft. above sea level. The earthwork remains consist of (1) a mount, upon which is a circular stone keep, the height of the earthen mount being 35 ft. from the eastern fosse to the visible base of the stonework: (2) a base-court or bailey on the south-south-east of the mount, defended by a stone wall, banked on the inside; (3) an entrance court lying south-west of the whole work;

(4) an outer inclosure on the east, rectangular in form, which forms with the rest of the work a rough square, defended by a powerful rampart and a fosse—the latter formerly much deeper than it is now.

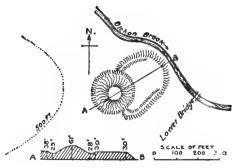
Though the mount and appendant courts appear to be of Norman or later origin, it is possible that a rectangular work existed earlier and was modified by adaptation to feudal requirements.

Mount castles abound in this part, that of Lower Pont-Hendre being less than three-quarters of a mile south-by-east.

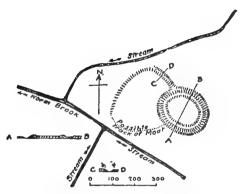
Longtown: Lower Pont-Hendre.—This small castle work stands above the River Olchon, close to and west of its junction with the River Monnow, and less than three-quarters of a mile from Longtown Castle. The entrenchments, which are naturally protected on the north-east by the river, consist of: (1) a mount some 33 ft. high, surrounded by a moat; (2) a court protected by the hill-side, scarped on the north-east and guarded by a rampart upon the other sides; but there is now no sign of an outside moat to the court. A feature of special interest is the nearness of this stronghold to Longtown Castle, to which reference has just been made.

Lyonshall Castle.—This stronghold is situated 2 miles east of Kington, standing upon ground 600 ft. above sea level and 160 ft. above the River Arrow, which flows three-quarters of a mile on the north-west. The entrenchments appear to have consisted of a circular ramparted keep, protected by a stone wall, and water moat. On the north side of, and within this inclosure, was a small tower of masonry banked on the outside with earth to the height of about 5 ft. North of the keep-mount was a court, or bailey, of square form, defended upon the north-west by a ditch and two ramparts; the defences of the other sides are vague. Another inclosure may have existed upon the north-east. A sketch, dated 1869, appears in

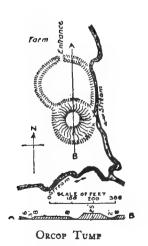
Longtown is now recognized as a parish, but was formerly a chapelry of Clodock.

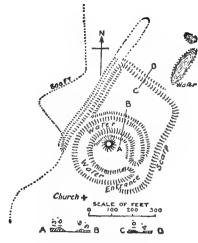


Lower Pont-Hendre, Longtown

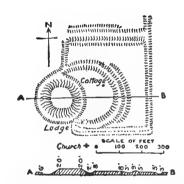


Much Dewchurch Castle

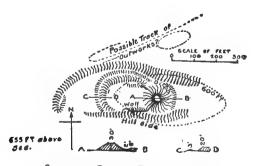




LYONSHALL CASTLE



Mortimer's Castle, Much Marcle



SNODHILL CASTLE, PETERCHURCH

Robinson's Castles of Herefordshire, showing the remains of a small keep of masonry.

MORTIMER'S CASTLE. See MUCH MARCLE.

Mouse Castle. See Cusop.

Much Dewchurch.—This stronghold stands upon low ground 5½ miles south-by-west of Hereford, and though situated between two streams has no natural defence. The entrenchments consist of an inclosure, defended by a shallow moat, the ballast therefrom being thrown inward to form a rampart, the whole work being of no great power. There are traces which appear to be the remains of a moat inclosing a court upon the west, but the whole of the works are in a poor state of preservation.

Much Marcle: Mortimer's Castle.—The castle stands upon ground 200 ft. above sea level and about 6 miles north-east of Ross in a position not having the advantage of any natural defence. The entrenchments are in a poor state of preservation, but appear to have consisted of: (1) a mount 20 ft. high above the lowest part of its surrounding fosse, level upon its summit, and measuring 96 ft. by 84 ft.; (2) a lunar-shaped court or bailey upon the east, now occupied by cottages with their gardens, the ditch surrounding the court being only just traceable; there is now no inner rampart, but the outer banking of the fosse is visible; (3) an outer court upon the east, the outworks of which upon the northern side are still well marked, but the eastern boundary is cut by a road, only the fosse being left; this continues north for some distance, as if it were the site of an older road rather than the entrenchment of the castle. Also there are indefinite traces of other inclosures on the north-west, but scarps and ditches are common in the district.

Probably masonry was used in the construction of Mortimer's Castle, but has long since disappeared.

ORCOP TUMP.—This earthwork stands upon low land 8½ miles south-by-west of Hereford. The position has no natural defence, except the protection afforded by the streams east and south. The entrenchments consist of a mount 24 ft. high above its surrounding moat, with a level summit measuring 60 ft. north to south, and 57 ft. east to west, and a court on the north defended on the east by the natural scarp to the stream, and on the other sides by a moat. Probably this moat and that round the mount were once deeper, and the water from the stream washed round the mount and court.

Peterchurch: Snodhill Castle.—The site occupied by this stronghold, commanding the northern entrance to the Golden Valley (6 miles eastby-south of Hay), must have rendered it of much importance in the days of constant fighting along the Marches. Its stone walls of great strength lasted till the 16th century; and fragments remain to this day.<sup>58</sup>

The earthworks, which with timber stockades constituted the earliest defences, were constructed out of a natural hill from which the land slopes on all sides, about 180 ft. above the River Dore, half a mile eastward.

The mount rises nearly 38 ft. above the terrace at its foot on the north. It has no fosse, proper to itself, save on the east, an arrangement which may

<sup>&</sup>lt;sup>58</sup> The solid lines in plan show the remains of the masonry which crowned the mount and was continued down its steep slope and along the rampart of the bailey.

perhaps be accounted for by the sharpness of the scarp on the north and south, where, no doubt, strong palisades of timber were provided.

Upon the west of the base-court, or bailey, is a sloping space defended on the north-west by a natural scarp 20 ft. deep, but it is not certain that the area was a second or outer court.

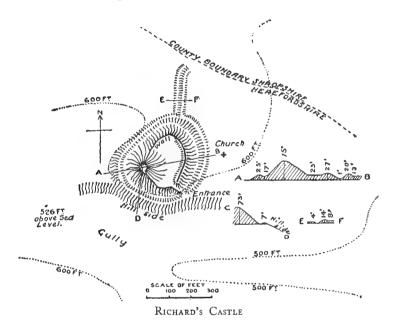
There are traces of irregular earthworks on the north-west, shown by a sketch dated 1888 to have been somewhat in the form of the letter S; also a long fosse covering the northern approach to the stronghold.<sup>69</sup>

RICHARD'S CASTLE.—This stronghold is situated 3 miles south-west of Ludlow in a district described by the late G. T. Clark as 'the most exposed upon the Welsh frontier, a position commanding some of the richest and most regretted of the lands conquered by the English, and sure to be assailed frequently and in force.'

Earthworks play so conspicuous a part in the scheme of defence that we must devote some space to their description, notwithstanding that the castle

and its history will be fully dealt with in another chapter. We may quote G. T. Clark's attractive descriptive remarks:— 60

The castle of Richard's Castle occupies a position equally remarkable for beauty and for strength. It stands upon the eastern slope of the Vinnall Hill, elevated ridge which extends hither from Ludlow, and a little to the west of the castle is cleft by two deep parallel gorges, beyond which the high ground re-



appears in two diverging ridges, of which one extends westward in the direction of Wigmore, and the other more southerly to the River Lugg. . . . By this means Richard's Castle is protected from the Welsh side by a double defence of hill and valley, besides its more immediate and special works.

The castle, though far below the summit of the Vinnall, stands upon very high ground, sloping rapidly towards the east. An exceedingly deep and wide gorge descending from the west bounds the position on the south, while a smaller and tributary valley, descending from the north, falls into the greater valley below the castle, and thus completes its strength upon the north, west, and south points. The defence towards the east is wholly artificial.

Upon the point of the high land, above the meeting of the two valleys, a large and lofty mound has been piled up, the base of which is about 300 ft. above the valley. . . . It seems wholly artificial, and stands in its own very deep ditch, beyond which is a high bank.

The entrenchments consisted of three members: (1) the mount, already mentioned, which is one of the highest in England, rising 73 ft. above the lowest part of the fosse, and only about 20 ft. in diameter on its summit;

<sup>59</sup> Trans. Woolhope Field Club (1886-9), 228.

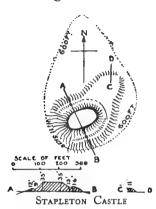
<sup>60</sup> Mediaeval Military Architecture (1884), ii, 403.

(2) a base-court or bailey on the east defended by a rampart and fosse, with remains of a wall of masonry on the rampart; (3) an outer court upon the north-east, of which the rampart and fosse of one side only remain. It will be seen by the plan that an outer rampart ran round the inclosure of the mount and base-court, but on the south the steep declivity of the hill formed the outer scarp.

An entry in Domesday under the name of AVRETONE seems to refer to Richard's Castle; by this mention, and one in the Saxon Chronicle, it appears likely that this stronghold was thrown up, in the reign of Edward the Confessor, by Richard Fitz Scrob, or Scrupe, or Scrope.<sup>61</sup>

SNODHILL CASTLE. See PETERCHURCH.

STAPLETON CASTLE.—This stronghold, situated less than a mile from Presteigne, is formed out of a natural hill, the highest portion being about

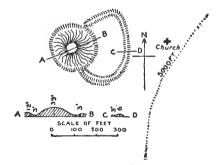


640 ft. above sea level, and 180 ft. above the River Lugg, which flows three-quarters of a mile on the south. The position is naturally strong, but the work forms a poor example of a mount and court castle. If the fosse shown on plan continued on the east, cutting off the mount from the court, as is probable, the mount or keep would have been of greater strength than at present appears. Considerable remains of masonry exist, but are mostly of 17th-century date. The court slopes towards the north-east, and is now only defended by a scarp; probably it once possessed a rampart of earth or wall

of stone. There are four other strongholds of this class within 5 miles.

Walterstone Mound.—This small mount and court castle is 14 miles to the south-west of Hereford, standing upon ground about 540 ft. above sea level, with much higher land on the north, east, and west. The fortification

consists of a mount about 29 ft. high above the lowest part of the fosse which surrounds it, and a court or bailey, the defensive works of which were never of any great strength, and are now in a bad state of preservation. The mount has no perfectly level space on its summit, and the fosse surrounding it has been filled in part; probably once it was deeper, and contained water, as part of it does now. The attached court, though now for the most part simply ramparted, probably possessed a



WALTERSTONE MOUND

fosse around it, a fragment remaining on its southern side. The nearness of Walterstone 'Camp,' half a mile east upon higher ground, should be noted, the 'Camp' possibly being of earlier date than this castle mount.

Weobley Castle.—The old borough of Weobley, situated about 7 miles south-west of Leominster, possesses some remains of the earthwork defences of its castle but none of the masonry walls and towers, though when

<sup>&</sup>lt;sup>61</sup> See 'Early Norman Castles in England' by Mrs. Armitage, Engl. Hist. Rev. July 1904, and 'The Castles of the Conquest' by J. H. Round, Arch. lviii, 1902. Mr. Round shows Avretone=Auretone to be Orleton, a village about 2 miles south of Richard's Castle.

Leland wrote there was 'goodly castle, but somewhat in decay,' and enough remained in 1655 to enable Silas Taylor to obtain a plan. The earthworks suggest an origin of later than Conquestial date, but as the position com-

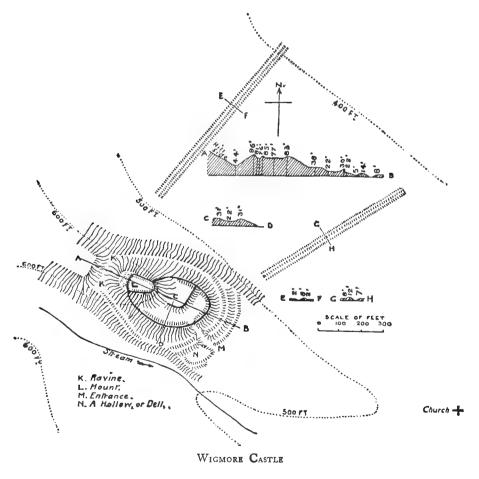
manded an important road from Leominster to the Welsh country, it is likely that some sort of fortress existed and may have been modified in the 12th century, when the castle figured in the wars between Stephen and Matilda. No true mount of early type now exists, but enough remains to suggest its former presence at the south of the bailey, or court, the point needing the strongest defence owing to its proximity to higher ground without. An outer rampart and water-filled moat also protected this side. The rampart of the bailey remains, except on the west, where it has been destroyed, and there are indications that a fosse, or moat, once surrounded the whole.



WEOBLEY CASTLE

A plan and description of Weobley Castle appeared in the Woolhope Field Club Transactions. 62

WIGMORE CASTLE.—The village of Wigmore, about 7 miles from Ludlow in a south-westerly direction, is often the bourne of pilgrims bent on viewing the remains of its castle, a structure figuring largely in the story of the troublous 'marcher' times, and well worthy of examination. The



63 (1886-9.) Plan, 228. Description, 252.

naturally strong position chosen by those who fixed upon this spot for the construction of a defensive work is at once manifest. A spur, or ridge, descends from the high land on the west, boldly rising on its northern and southern sides and terminating eastward in the knoll on which the church now stands. A broad expanse of low marshy land, formerly under water, protected the ridge on the north, while the narrow valley of a brook helped to guard the southern side. A deep ravine crossed the ridge from north to south cutting off the eastern space, since wholly occupied by the castle. The protection afforded by this ravine was increased by steeply scarping its eastern slope and deepening the hollow. The mount, so conspicuous a feature of the stronghold, was raised upon the eastern verge of the ravine, an oval court, strongly defended, extending eastward of the mount. The court underwent modifications when masonry was introduced, but these and various additions to the work appertain to another chapter of this History. To the left of the entrance way the outer fosse has been widened and its counterscarp provided with a bank, thus forming a dell or hollow, maybe indicating the site of a house or chamber which sheltered the guards at the gate.

We have made use of a portion of the late G. T. Clark's careful description of the main features of this stronghold, but cannot agree with him in assigning any of the earthworks to so early a period as A.D. 921.63

Mr. J. Horace Round <sup>64</sup> draws attention to the entry in Domesday, Willelmus comes fecit illud castellum, which proves construction by William Fitz Osbern, in the reign of the Conqueror. There are two lines of entrenchments running down the north-east slope of the hill beyond the confines of the castle, unmentioned by Clark, of uncertain date and purpose, which involved much labour in their construction. These are included in the plan. <sup>65</sup>

<sup>&</sup>lt;sup>63</sup> Mediaeval Military Archit. (1884), ii, 526. The eventful year A.D. 921 figures largely in the Saxon Chronicle. Two of the incidents mentioned are the building of the burg at Wigingamere and its speedy attack by the Danish army. Clark and other writers assume Wigmore to be the place referred to, but we strongly incline to locate it far away, in the east of England.

Guarterly Review, July 1894.

65 There is a paper on Wigmore Castle in the Trans. Woolhope Field Club (1881-2), which, however, does not include a plan, but gives a reproduction of S. and N. Buck's view of the ruins, published in 1732.

#### HOMESTEAD MOATS

(CLASS F)

ALLENSMORE. — Four miles south-west of Hereford. At Meer Court three-quarters of a rectangular moat of considerable size remain.

ALMELEY.—Four miles south-east of Kington. Between Sarnesfield Coppice and Ferney Common is an oblong moated inclosure, much destroyed on its eastern side.

ASHPERTON.—Five miles north-west of Ledbury. At Freetown, in this parish, is a portion of a considerable rectangular moat.

At Walsopthorne are the fragmentary remains of another.

AYMESTREY: LEINTHALL EARLS.—Seven miles south-west of Ludlow. Gatley Farm-house, on lofty ground, retains a moat.

BISHOP'S FROME.—Four miles south of Bromyard, Cheyney Court retains a portion of the original moating. Traces also exist at Hopton, an old grange.

BISHOPSTONE.—Seven miles west-north-west of Hereford. The Court possesses a complete moat of considerable area, with entrances on the east and west.

BOSBURY.—Four and a half miles north-by-west of Ledbury. On the west of this parish, on the site of the house of the Knights Templars, part of the moat remains.

Bredenbury.—Three miles west-north-west from Bromyard. Slight remains are at Sawbury Hill, close to the Bromyard road.

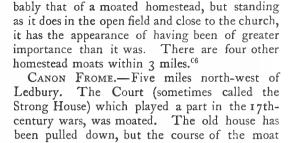
Brinsop.—Five miles north-west-by-west of Hereford. In this parish are two good examples, one at Brinsop Court, the other a little to the south.

BROCKHAMPTON (LOWER).—Four miles northnorth-west of Ross. Three-quarters of a mile north of Brockhampton Park is a rectangular moat with some slight remains of masonry where the gatehouse, with a portcullis, stood.

Adjoining this moat on the east side is another and much smaller moated inclosure.

Bromyard.—Thirteen miles north-east of Hereford. Brockhampton Manor House in this parish was formerly a moated grange.

Burghill.—Three and a quarter miles northnorth-west of Hereford. The work consists of a small square platform surrounded by a moat, with an outside rampart upon the south and east, acting



as a dam to form a water level, the moat, now dry,

once being filled with water. The work is pro-

may be traced.

Canon Pyon.—Four and a half miles southeast-by-east from Weobley. A quarter of a mile north-east of Green Plock is a considerable and perfect rectangular moat with a causeway on the

southern side.

Castle Frome.—Seven miles north-west of Ledbury. At New Birchend is a small and complete rectangular moat.

COLLINGTON.—Four and a half miles north from Bromyard. A small but perfect moat surrounds the spot which still goes by the name of Martin's Castle.

COLWALL.—Four miles north-east of Ledbury. A portion of the moat at Brockbury Hall remains.

At Cummings Farm is a fragment of a rectangular moat.

CRADLEY.—Seven miles north-east from Ledbury. Three parts of a circular moat remain at Seeds Farm near Ridgeway Cross.

DILWYN MOAT.—Five and a half miles southwest of Leominster. This work is upon ground

a few feet above the level of Stretford Brook, which flows half a mile south. Though suggestive of a castle site the work appears rather to be of the homestead moat class; perhaps an ancient manorial holding. The parish church is distant about an eighth of a mile.



DILWYN MOAT

About half a mile south-east of the above is a small rectangular moated inclosure fairly perfect except on the east side.

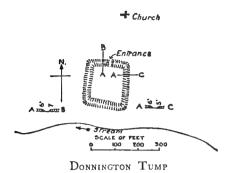
Donnington Tump.—Two and a quarter miles south of Ledbury. This homestead moat lies 20 ft. above the level of the River Leadon, which flows half a mile on the west. Owing to the proximity of a stream the land on

Church Burghill Moat

<sup>66</sup> Since the above was written, the mound has been completely levelled and the moat filled up.

the immediate south of the moat is somewhat marshy; there is no other natural defence.

As this example is typical of works of the class so common in certain lowland districts of



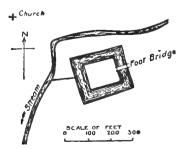
England, we include a plan. Probably where is now a causeway was originally some sort of movable bridge over the water-filled moat which was then much deeper and furnished with a stockade on the inner scarp.

EARDISLEY: THE CAMP.—Three miles southsouth-west of Kington. The position has no natural defence, and the only protection remaining consists of a moat with a bank on the west, where the ground dips a few feet to the stream. Somewhat similar works are found at Lemore, a mile and a half east, and at Howton near the village of Kilpeck, in the south-west of the county. The inclosure has been regarded by some as a Roman camp, an idea for which there is no foundation, and from its present appearance of a moated platform for a dwelling, we cannot but include it in Class F.

Close by on the west the ground has been disturbed, but we can trace no entrenchments such as have been thought to exist.

HENTLAND.—Four and a half miles northwest from Ross. Portions of the moat remain by the side of the old mansion at Gillow.

HOPE MANSEL.-Five miles south-east from



THE MOAT, KENTCHURCH

Ross. At Moat Farm are some poor traces of the original moat.

Kentchurch: The Moat.—Ten miles south-west of Hereford. This fine and perfect homestead moat lies within a quarter of a mile of the River Monnow and close to a small stream. Probably the stream was tapped on the northeast, while the outlet from the moat was that shown on plan.

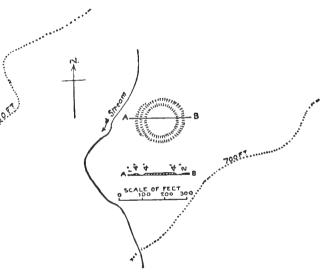
KINGTON.—Nineteen miles north-west of Hereford. Hergest, an old dwelling of the Vaughans, still retains a considerable portion of its moat.

LEDBURY.—Fifteen miles south-east from Hereford. At Quatsford two sides of a large moated inclosure remain.

LEINTHALL EARLS. See AYMESTREY.

LEOMINSTER. — Thirteen and a half miles north of Hereford. A moat remains at Upper Hyde, half a mile south-east of Stretford. A small but perfect example is at Wharton Court.

At Upper Wintercott is another. It is provided with a wide water-filled moat surrounding an island of almost circular form.



THE CAMP, EARDISLEY

LUGWARDINE.—Two and three-quarter miles north-east from Hereford. On the west of Old Court, Herne Hill, is a nearly complete moated inclosure, with a strong spring of water adjoining which doubtless fed the moat.

Also in Lugwardine parish, at Old Longworth, is a portion of moating close to the site of an ancient chapel.

Madley.—Six miles west of Hereford. Cublington, a reputed castle, appears to have been a moated manor house.

Mansell Lacy.—Seven miles north-west from Hereford. On the east of Court Farm are considerable remains of a circular moat, but much destroyed on the north-east.

MIDDLETON-ON-THE-HILL.—Six miles northeast from Leominster. There are some slight

remains of Moor Abbey partly surrounded by a moat.

Moreton-on-Lugg.—Four miles north from Hereford. Close to the church are the remains of a large moated inclosure, of which the northern side and most of the east have been destroyed by farm buildings.

Much Dewchurch.—Five and a half miles south-west from Hereford. Near Cottage Farm, about half a mile north-west of Wormelow Tump, is a perfect rectangular moat with an entrance on the south side.

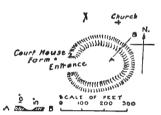
Much Marcle.—Six miles north-east of Ross. Considerable remains of a nearly circular moat exist north-east of Rushall.

Munsley.—Four miles north-west from Ledbury. A poor fragment of a moat remains at Paunceford Court.

Also much larger traces at Lower Court, which consisted originally of a circular moat with a rectangular inclosure outside it.

Pembridge Court House.—Six and a half miles west-by-south of Leominster. This inclosure is upon ground about 40 ft. above the River Arrow, which flows a quarter of a mile

on the north. The position has no natural defence and the entrenchment consists only of a moat, well marked except upon the west, where farm buildings more or less interfere with the return from the



THE MOAT, PEMBRIDGE COURT HOUSE

north. Once the ditch was much deeper, and probably the inside verge of the moat was defended by a wall of earth or masonry.

Owing to the simplicity of the defensive work we include this in Class F, but as Pembridge Court House was occupied by families of distinction in past centuries the house was no doubt of importance.

Five village churches within 4 miles also have defensive earthworks near by.

PEMBRIDGE HUNTON ÉARTHWORK.—Three miles north-east-by-east of Kington. The work consists of a platform formerly surrounded by a perfect moat. Destruction has overtaken the southern portion of the moat, rendering the inclosed island easily accessible. The work has been supposed by local antiquaries to have been of importance, but it appears to be just a simple homestead moat such as abound in various parts of the country.

PIPE AND LYDE.—Three miles north from Hereford. Lyde Court evidently once possessed moating inclosing a considerable area, but the moat has been much destroyed, excepting at the northern angle.

PIXLEY.—Three and three-quarter miles northwest from Ledbury. At Court-y-Park are much broken fragments of a moated inclosure originally about 300 ft. square.

At Mainstone Court is a more perfect moat, oblong in form with a rounded end on the south.

In this parish are other broken fragments of

Shobdon.—Six and a quarter miles north-west of Leominster. There are the remains of a moated inclosure at Ledicot, but in a very fragmentary condition.

Sollers Hope.—Seven and a half miles northeast from Ross. Part of the moat remains on the site of the old manor-house.

STOKE LACY.—Four miles south-west from Bromyard. At Lower Hopton in this parish is a perfect and nearly circular moat with a causeway entrance on the north-west.

STRETTON GRANDISON.—Eight miles northwest from Ledbury. Partly in this parish and partly in Eggleton is a long stretch of moating, which appears to have been one side of a great inclosure.

SUTTON ST. MICHAEL.—Four miles north-east from Hereford. At Freen's Court is one arm of moating which must have been of large extent.

TARRINGTON.—Seven miles north-west from Ledbury. Half a mile east of Stoke Edith is one angle of an old moated inclosure.

THORNBURY.—Four miles north-west of Bromyard. Netherwood, now a farm-house, was formerly a moated mansion.

Vowchurch.—Ten miles west-by-south from Hereford. A circular moat, with some traces of an outer work, exists at Monnington.

Wacton.—Four and a half miles north-west from Bromyard. At Wacton Court are fragmentary remains of a moat.

Weobley.—Seven miles south-west from Leominster. At Nunslands are the remains of a large moat, well supplied with water.

Westhide.—Eight miles north-east from Hereford. At the Court are the remains of moating, the north-east portion being very much enlarged to form a fish-pond.

WESTON BEGGARD.—Five miles east from Hereford. One angle of a moat remains at Shucknall Court.

WINSLOW.—Two and a half miles south-west from Bromyard. The site of Rowden Abbey retains a large amount of moating on the west, and some portions on other sides.

YARKHILL.—Seven miles north-east of Hereford. At Showle Court are irregular remains of a moat which appears to have been enlarged to form a pond.

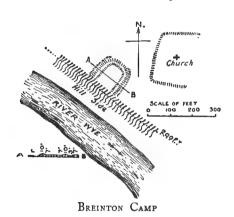
At Yarkhall in the same parish is a well-defined water-moated inclosure which must have been of considerable strength.

## MOATED INCLOSURES WITH STRONGER DEFENSIVE WORKS

(CLASS G)

Ashperton Castle.—Five miles north-west of Ledbury. This parish, with Stretton Grandison adjoining, formed part of the possessions of the Grandison family in the 13th century, and here we find a moated inclosure, robbed of all masonry, the sole memorial of the ancient feudal stronghold, excepting a few vague traces of trenching and other work near.<sup>67</sup>

Breinton.—This small earthwork, standing upon ground about 50 ft. above the River Wye, is situated 2½ miles from Hereford. The en-

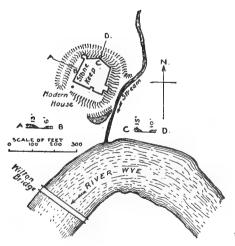


trenchments are not in a perfect state of preservation, but evidently consisted of a fosse and rampart; the fosse is now destroyed on the north-east side. Upon the south-west the steep slope to the river was regarded as sufficient protection, aided no doubt by a strong stockade on the summit. The position near the church may indicate that the work was a manorial or late stronghold, but one of unusual form. There is a slight trace of an entrenchment round the church, but the indications are vague.

BRIDSTOW: WILTON CASTLE.—This moated castle stands on the right bank of the Wye, opposite to the town of Ross, picturesquely hidden by the luxuriant foliage of surrounding trees. The position, though naturally defended to an extent by the river on the south and east, was not strong for an important work; probably, however, the requisite strength was attained by the use of masonry from the first

establishment of the stronghold. There is nothing remaining to indicate early origin, though possibly there was once a circular mount. The existing remains of the castle will be described in another chapter. The Rev. C. J. Robinson gave two views of the buildings.<sup>68</sup>

Brinsop.—The earthworks situated in the narrow valley between Credenhill and Merryhill, about 5 miles north-west of Hereford, are marked as a 'camp' in the Ordnance Survey map, and have been claimed to rank among Roman remains, but they appear rather to belong to the manorial period, and to be little more



WILTON CASTLE, BRIDSTOW

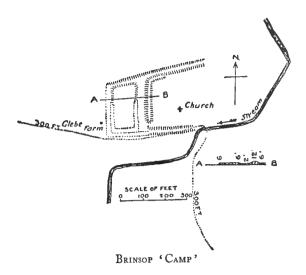
68 Castles of Herefs. (1869), 143.

<sup>&</sup>lt;sup>67</sup> William de Grandison had licence from Edward I in 1292 'to crenellate his mansion at Asperton.' Robinson, Castles of Herefs. (1866), 6.

than a development of a work of the Homestead Moat Class (F). The work is placed higher than the 69 immediately surrounding ground, and is protected mainly by a fosse or moat, which may, however, have been

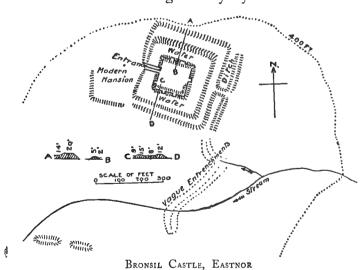
throughout provided with a rampart on its inner verge, such as remains in parts as shown on plan. The smaller division, on the west of the main inclosure, retains no trace of a rampart. The stream and its marsh afforded added protection on the east, but probably more artificial defences also existed there than can now be seen.<sup>70</sup>

EASTNOR: BRONSIL CASTLE.— The remains of this late mediaeval stronghold lie in the valley beneath the shadow of Midsummer Hill and other high ground, 2½ miles east of Tenbury. It is in this chapter neces-



sary only to record the earthwork defence, which may possibly antedate the traces of a masonry keep remaining on the island. The ground slopes, and it appears that the banking was rather to maintain a good level of water in the moat than to serve as a defensive rampart. The outer moat upon the east-south-east and the entrenchments upon the south-east are much destroyed and difficult to map correctly. The moating here may be no older than the earliest record of the castle—a licence to crenellate, granted by Henry VI in 1449.

DOWNTON-ON-THE-ROCK: THE CAMP.—This small defensive work stands upon sloping ground 50 ft. to 100 ft. above the River Teme, and within 2 miles east-south-east of Leintwardine. The position is naturally defended on the east generally by the river and on the south-east by a steep

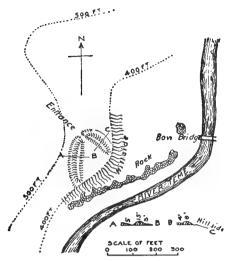


fall of rock and the slope of the land. The entrenchments are simple, consisting of a fosse, with the ballast thrown inward to form a rampart (material from elsewhere being added), the whole work in its original condition being of considerable strength. The entrenchments on the north-east side are not as perfect as those on the west, and do not in their present state

<sup>69</sup> The inclusion of the church within the defensive work indicates its close proximity to the lord's hall, a feature frequently met with in manorial strongholds.

There is a brief reference to the earthwork in the *Trans. Woolhope Field Club* (1881-2), 238, also a plan in vol. 1886-9, which shows the entrenchments in more perfect condition than they are now.

afford much protection. The position has practically no command, even of the immediate neighbourhood, except for a few hundred feet northeastward. The opening upon the north has the appearance of age, but



THE CAMP, DOWNTON-ON-THE-ROCK

adds weakness to the stronghold. A quarter of a mile north-west, near the church, is a castle mount which we include under Class D.

Eccleswall Castle. See Linton.

GOODRICH CASTLE.—Few castle ruins in Herefordshire are so well known as those of this feudal stronghold, situated 3 miles south-south-west of Ross, on an eminence commanding an important ford across the Wye. Of earthworks there is nothing beyond a wide dry moat which surrounded and added materially to the strength of the defensive work.<sup>71</sup> The castle will be described in another chapter of this History.

LINTON: ECCLESWALL CASTLE.—In the reign of Henry II Richard de Talbot ob-

tained a grant of the lordship of Eccleswall and Linton, and he may have erected the castle but no record exists, and now nothing remains to remind us of the stronghold excepting a grass-grown moat and a low mount of earth. Some fragments of masonry built into the farm premises which occupy the site may have belonged to the castle.

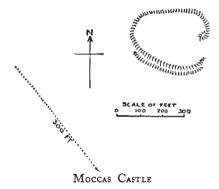
Moccas Castle.—This fragment of an ancient stronghold, situated 10½ miles west-by-north of Hereford, stands a mile south-west of the Wye and about 100 ft. above the river level. But that we know the place to have been of importance in foundal times and

to have been of importance in feudal times, and that there is evidence of the former existence of other defences, we should have judged it the site of a simple homestead.

The Rev. C. J. Robinson says:—

The site of the ancient castle may be readily traced in a meadow lying on the south side of the high road east of the park. The foundations have long formed a quarry for road metal, the moat, partially drained, is now only a swampy circle, and a few grassy hillocks alone mark the spot on which the old buildings stood.<sup>72</sup>

Pembridge Castle. See Welsh Newton.



PETERCHURCH: URISHAY CASTLE.—Although called a castle this was probably one of those 'defensible houses,' strong enough to stand attacks from bands of lawless men and raiding parties, but by no means capable of sustaining a military siege. It is in the wildest part of the parish of Peterchurch, about 11 miles west of Hereford, and its courtyard may have often served to shelter the live-stock of the demesne. The Rev. C. J. Robinson

12 Hist. of the Castles of Herefs. and their Lords (1869), 108.

<sup>71</sup> It is said that there was here a stronghold in the reign of Edward the Confessor, 'entrenched in a stockade of wood,' but of this there is no evidence.

gave a view of the picturesque old building (perhaps of Elizabethan date) which succeeded earlier work, and he spoke of moat and fosse without the buildings.<sup>73</sup>

ST. Weonards.—Six and a half miles west of Ross. The fortified mansion known as Treago was surrounded by double walling; and beyond the second wall was a water-fed moat supplied by the River Garren. There are some traces of further defensive works.

TRETIRE CASTLE.—The castle site, 8 miles due south of Hereford, is referred to by the Rev. C. J. Robinson as a large squarish mound, on which several towers appear to have stood, divided from the neighbouring ground on two sides by a fosse. No masonry remains, but foundations may still be traced, and the internal courtyard is well defined.<sup>74</sup>

URISHAY CASTLE. See PETERCHURCH.

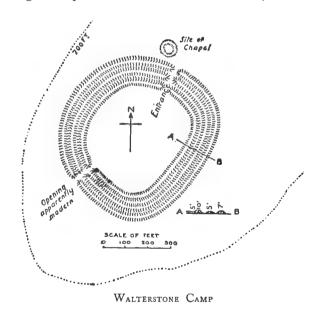
Welsh Newton: Pembridge Castle.—The Rev. C. J. Robinson states: 'the fortress is in a comparatively perfect condition.' There is a moat, now incomplete, which formerly surrounded the castle. At the beginning of the 13th century Ralph de Pembridge was settled here, and the moat may have been dug in his time.

Welsh Newton lies over 7 miles south-west of Ross, on the Mon-mouthshire border. The simple form of the earthwork would justify its inclusion in Class F, but as lines of stone walling from the first added to the defensive character of the whole, we class it under G.

WALTERSTONE CAMP.—This stronghold is situated 13 miles south-west of Hereford, and stands upon the highest part of a hill here over 700 ft.

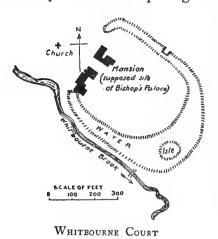
above sea level. The position, though 370 ft. above the River Monnow, which flows a mile westward and rather less on the south-east, is not immediately defended by the hillside, the slope being of no great steepness. The entrenchments are of an exceptional form, and consist of three ramparts and two fosses, the outer fosse apparently once containing water.

Chisbury in Wiltshire, and Bramley in Hampshire, afford much similarity in plan, but such works are by no means common. The earthworks are much reduced in height, but are otherwise in a



good state of preservation. The original entrance was probably north-north-east, by the side of the circular inclosure marked 'site of chapel.' It is impossible to assert the date of construction of this interesting work, in the absence of definite evidence, but the probability is that its ramparts guarded a Norman stronghold, therefore, notwithstanding its appellation of 'camp,' we prefer to include it in Class G.

WHITBOURNE COURT.—This work, situated 4½ miles north-east of Bromyard, stands upon ground a few feet above the Teme (in a bend of



which river it stands), which winds an eighth of a mile south. The position is naturally defended on the east and south-east by a stream and the river. The work belongs to a class which includes Leeds Castle in Kent, Hanley Castle in Worcestershire, and others which possess little in the way of earthworks, but a large amount of water protection.

Whitbourne Court was from an early date in the possession of the Bishops of Hereford, and was sufficiently defensible in the 17th century to attract the attention of the Parliamentarians.

WILTON CASTLE. See BRIDSTOW.

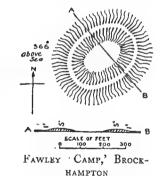
#### MISCELLANEOUS EARTHWORKS

(CLASS X)

ASHTON. See Eye.

BROCKHAMPTON: FAWLEY 'CAMP.'—Four miles north-north-west of Ross. This entrenchment (if such it is) occupies the highest part of a hill

about 200 ft. above, and within a bend of the River Wye, which flows a quarter of a mile north and east. The work is named upon the Ordnance Survey a 'Camp,' but has a much greater resemblance to a pond. As will be seen by the section, the base of the supposed rampart is wide, and the height insignificant, in fact, in its present condition it is difficult to trace the faint outline, and a rampart of so great a width defending so small an inclosure is very rare in any county.



EARL OF GLOUCESTER'S DITCH.—A ditch extends all along the top of the Malvern Range which is

said to have been constructed by Gilbert de Clare, Earl of Gloucester, who married Joan of Acre, daughter of Edward I.

The Earl resided at Hanley Castle and received the rights of Malvern Chase as his wife's dower, so, wishing to separate this from the lands of the Bishop of Hereford, he constructed a ditch... This ditch... is cut upon the Worcestershire side of the range, and is in some places very sharp and deep, notably on the high peak over Malvern Wells... The dyke may be traced on to the Wind's Point... it then apparently makes use of the outer ditch of the Beacon camp past the place of assembly, and at the south end goes off at right angles above the valley by the Thorn Tree, keeping along the top of the hills, crosses the Silurian Pass (where many old British roads or trackways may be clearly traced, the principal of which runs into the Ridgeway), over the Levinyard Hill up the side of Midsummer and Hollybush Hills, through the north side of the ditch of Hollybush Camp, down the declivity on the south out of the Camp, over the Hollybush Pass, and top of Ragged Stone Hill.<sup>76</sup>

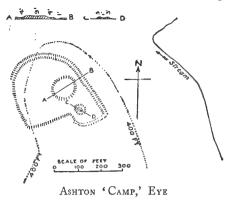
<sup>76</sup> Trans. Woolhope Field Club (1877-80), 220. Referring to this ditch or fosse we find the following entry:—'An agreement (19 Edw. I) between Godfrey, Bishop of Worcester, Gilbert de Clare, Earl of Gloucester and Hereford, and Johanna Countess of the same, whereby the Earl and Countess make promise to render certain tribute of deer to Godfrey in consideration of his allowing the foss made by the Earl on the top of Malvern Hill (on the land of the Bishop) to remain.' Trans. Woolhope Field Club (1898-9), 72.

#### ANCIENT EARTHWORKS

EYE: ASHTON 'CAMP.'—Ashton, a township of Eye, situated about 3½ miles north-north-east of Leominster, possesses mutilated traces of a camp

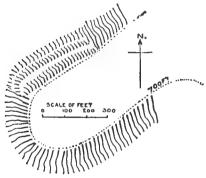
said to be 'evidently Roman.' What evidence may have been afforded when the works were fairly complete we are not aware, but from the remaining fragments it is impossible to assign a period to the construction.

The embankments, if they existed, have been levelled, but the line of defence is clearly defined, the inclosure occupying a tongue of land 400 ft. above sea level, having a general slope towards the north-northwest. A platform raised 5 ft., shown in



plan, is placed on the eastern side of the area, and further south is a slight mount with a cup-shaped hollow.

It has been suggested that the inclosure may have been made for a campingplace of one or other of the contending forces in the 17th century. These



Westington 'CAMP,' GRENDON BISHOP

works are described in the *Trans. Woolhope* Field Club.<sup>77</sup> Ashton Castle Tump lies half a mile to the north-west.

FAWLEY CAMP. See Brockhampton.

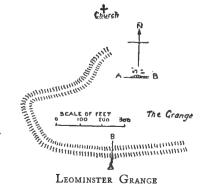
Grendon Bishop: Westington 'Camp.'
—Westington, or Netherton, is 4½ miles westby-north from Bromyard. Here is a natural
tongue of land, about 700 ft. above sea level,
jutting out between two gullies, one on the
north-west, the other south-east, streams from
these uniting three-eighths of a mile southwest. The position is naturally defended on

three sides by the fall of the hill, and if there were entrenchments, cutting off the tongue from the high land on the north-east, the work would form a stronghold; but there are no true earthworks thus defending that weak side.

The scarps on the north-west, and one on the north-east sloping inward instead of outward (not shown on the plan), are probably natural. Though mentioned in Gough's Additions to Camden's *Britannia* as a 'square camp,' there is much doubt whether the position was ever truly fortified.

LEOMINSTER.—The bank or rampart near the Grange, shown on the accompanying plan, is not in its original condition, as it has been lowered and levelled to form a promenade inclosing a public recreation ground. There is now no fosse, and houses, gardens, and roads have obliterated the track of the bank on the eastern side.

The work apparently belongs to a class of earthworks known in Yorkshire as 'garths,' and was probably of no great importance.



<sup>77</sup> Op. cit. (1883–5), 174.

I

STRETTON GRANDISON CAMP.—According to Gough here was a square camp,<sup>78</sup> but it is not now to be traced. All the artificial work we find is a supposed line of entrenchment crossed in approaching Homend Bank and a deep fosse further north-west; these fragments are of doubtful origin and purpose.<sup>79</sup>

There are two small mounds, possibly tumuli, near, and further east a much larger circular mound, by some regarded as the chief point of defence of the camp. Stretton Grandison is situated nearly 8 miles north-west of Ledbury.

#### OFFA'S DIKE IN HEREFORDSHIRE

In no part of its length, from its commencement on the shore of the Dee estuary in Flint to its southern end at the Sedbury Cliff on Severn, in Tidenham, Gloucestershire, is the line of this great earthwork, the 'Mark' of Mercia, more broken and obscured than in its traverse of the county of Hereford.

The opposition to the Mercian advance in the direction of Wales was more determined and continuous in this district, where no natural barrier afforded protection, than in any other; and, as will be seen, caused the line of the Dike to be here broken and altered even in the course of its construction. Next, not long after its completion, Mercia, in this part, and this part only, crossed the Wye, and pushed forward its borders so as to include the district west of that river as far as the Dore (Sax. Chron. 941); so that here the Dike ceased, in part, to have its meaning.

Again, the Dike was normally formed of moderately sized pieces of stone, closely filled in with soil. The absence of stone in the greater part of Herefordshire, and the consequent use of the local marl in its construction, left it readily destructible by natural and artificial means. It is noticeable that the more perfect parts remaining in the county are those in proximity to the Cornstone and Ludlow shale beds. Further, in the less hilly parts of the county the land has come under cultivation, or been divided into small inclosures; and the pasturing of cattle has led to the abolition of the yew trees which (as well as large holly trees), elsewhere lend a material assistance to its identification. All these causes have reduced the Dike in many parts to a condition strongly in contrast to that obtaining in the wilder and more hilly parts of its course.

After passing through the extreme east of Radnorshire, in a course of 7 miles nearly due south from Knighton, the Dike leaves that county at Burva (Brit. Bwr-fa, the place of entrenchment) and Ditch Hill. It enters Herefordshire a mile west of Knill, at a point called 'Rugedich' and 'Rogedich' in an ancient perambulation of the county; 81 then takes a bold sweep round

78 Additions to Camden's Brit. (ed. 1789), ii, 463.

80 The part of the Dike which skirts Tidenham Chase in Gloucestershire is called the stan-raw (stone row) in Edwy's grant of the manor to Bath Abbey circa 956 and in the grant of Wm. Marshal Earl of Pembroke to Tintern Abbey in 1223. The word raw will be found to occur frequently in the text in the forms of row, rough, ruge, roge, &c.

s1 P.R.O. Misc.: Chan. Inq. Hen. III, file 19, No. 12. This was erroneously identified by the late Mr. R. W. Banks with the Bank Ditch on the road to Penybont near New Radnor, *Arch. Camb.* (4th Ser.), x, 302. The same writer (ibid. xiii, 31) confused Cingestun in a Saxon document relating to Tidenham (where the Dike is mentioned) with Kington, in Herefordshire; and was thus led to the erroneous statement that 'there is no doubt that the Dike ended at Bridge Sollars,' and that Asser was wrong in saying that it extended from sea to sea.'

### ANCIENT EARTHWORKS

Herrock Hill; crosses Rushock 82 (where three conspicuous yew trees called 'the Shepherds' stand on the bank); and apparently ends off abruptly, after a course of 5 miles, at Kennel Wood, where it meets the inclosed lands.

Between Kennel Wood and Shoals Bank, south of Weobley, the Dike is greatly obscured; and much doubt has arisen from the existence of two distinct sets of earthworks, both greatly discontinuous, but entirely disconnected from each other. The more probable solution is that the more perfect line represents the completed work, and the other one never completed and ultimately abandoned. This is confirmed by, and indeed explains, the records in the Gwentian Brut that, in 765, 'the Cymry devastated Mercia, and thereupon Offa made the great Dike, called Offa's Dike, to divide Wales from Mercia'; that, in 776, 'the men of Gwent and Glamorgan entered Mercia and razed Offa's Dike level with the ground'; and, in 784, 'Offa made a Dike a second time nearer to bimself, leaving a piece of country between Wye and Severn where is the tribe of Elystan Glodrydd.' The principality of Elystan, stretching from the Wye to the east of Powis, included this district.

The more complete and, probably, later of these lines was, as far as can be ascertained, as follows:—Leaving Kennel Wood, at the north-east of Rushock, it struck through Scutchditch 83 Wood, and thence is represented by the Green Lane, and skirting Wapley Hill it came to Stocklow, whence a well-defined hedgerow leads to a point on the Pembridge Road a quarter of a mile west of Milton Cross. From this point a well-formed dike strikes south in a straight line across the Arrow valley, a mile in length, broken only by the river, to a point on the Kington Road half a mile from Pembridge. This bank presents all the features of the best preserved parts of the Dike and is locally known as the 'Rowe Ditch.' From its southern end farming operations and orchards have obliterated nearly all traces as far as the eleventh milestone from Hereford on the road to Weobley; except that in the interval, and in almost a straight line with the bank just described, the names Rough Moor, Grim's Ditch, Riddox, and the Ley (where some traces have been identified), seem to have preserved the memory of the Dike.

From this eleventh milestone a bank, with a well-marked line of ancient hollies, leads along Shoal's Bank and through Yazor Wood to the Claypits, whence the Dike is easily recognizable to the termination of this length on the left bank of the Wye at Bridge Sollars.

Of the alternative, and probably earlier, line some substantial but short and discontinuous remains appear between Titley and Holme Marsh, crossing the railways near Titley Junction and Lyonshall station; but south of Holme Marsh nothing has been recognized, nor does any suggestive placename occur.

This line, so far as it was constructed, was much nearer to Wales than the other line already described.

Between Bridge Sollars and Hereford the river appears to have been accepted as the 'Mark.' In any case there is no indication that the Dike ever existed between those places.

89 Qy. Scouts Ditch.

<sup>&</sup>lt;sup>89</sup> In Domesday 'Ruiscop,' probably ræw-cop. The Dike passes over its highest point at an elevation of 1,245 ft. The Yews on the Dike probably account for the name Yazor (Iavesoure in Domesday, i.e. 'iwesora' or 'The Yew Bank') to be presently mentioned. So in the Edwy Charter already referred to (note 80) the 'iwes-heafod' (Yews-head) occurs on the Dike opposite Tintern.

From Hereford southward to the county boundary the line long remained lost. Recent investigations have led to the determination of the following line as its probable, and almost certain, course.

At Bartonsham Farm, the south-west corner of the city, a well-defined bank strikes east from the river for a distance of 250 yds. to a clump of yew trees. There it gives place to a broad, dry ditch, continued in the same direction, and parallel to but outside the city wall, to the Eign Road. This Ditch, which is known as the Rowe Ditch, has been erroneously asserted to have been constructed by the Scots Army in 1645. As a fact that Ditch is mentioned in records of the time of Edward I and Henry VIII, and therein called the Rough Ditch, and Rowe Ditch. By a converse error some entrenchments on the opposite bank of the river, which may have been made by the Scots Army, have been recently given the name of Rowe Ditch, which does not belong to them.

At a few yards beyond the eastern end of this Rowe Ditch, the Eign Road, from the brook crossing, has on its right a well-formed dike, which continued along the cliff called the Vineyard, with ancient thorn trees; but this has been of late years to a great extent removed for building operations. Much flattened, it can still be seen crossing the grounds of Titley Court to the Mordiford Road near the 'Franchise Stone'; and thence to the Lugg Bridge the road is partly on the Dike, and at other times has it on one side or the other. Beyond the Lugg it can be seen in the grounds of Old Sufton (compare Soughton in Flint which the Dike traverses), and passing by 'the Rough' at Mordiford Cockshoot and 'Clouds' (qy. Brit. Clawdd), where the work is very distinct, it is again for a time obliterated; but reappears, though faintly, across Park Farm, through Park Coppice, and in Devereux Park. It then struck up to the Putley Cockshoot on Marcle Ridge (A.S. mearc-leah, the land of the Mark).

At this point it turned south; and from here one of the best preserved portions can be traced for a length of 1½ miles along the Ridge, almost on the edge of the escarpment overlooking the Woolhope valley, as far as the Cherry Orchard, south of Oldbury Camp. Here, in order to gain the lower ground, the work takes the form of a ditch of great depth; from Westnors End to Barrel Hill Green it is absorbed by the road. Then across fields and through Yatton Wood it gains the top of Perrystone Hill and strikes down to the Old Gore. Here it is well seen on the east side of the road leading into the Ledbury to Ross Road, which from the junction to the bridge over the Rudhall Brook at Ross is practically on the line of the Dike. At first it is thereby elevated above the adjoining lands after the manner of the Fosse Way; at Park Farm the Dike is to be plainly seen on the right side of the road; further on the road has been cut down and the Dike thereby obliterated; but at Over Ross it forms a causeway on the left side of the road.

Whether it was formed across what is now the site of the town of Ross it is impossible to say. Commencing again at Cleeve on the south-west of the town, and analogously to the work at Hereford, a deep ditch, now partly a lane, struck across through the part called, since at least the 16th century, Duxmere (dic-mær, the Dike boundary), to the Vine Tree Inn in the Walford Road. Beyond this no certain trace is found until a bank forming a hedge-

<sup>84</sup> It is not improbable that there was also a bank here which was removed when the city wall was built.

# ANCIENT EARTHWORKS

row appears on the breast of the Leys Hill, which enters the Bishopswood above Kerne Bridge station and is well developed in the Furnace Wood above All Saints' Church. From here to the county boundary, at the Lodge Grove Brook, it is lost; but just beyond the brook 'Marstow,' in Gloucestershire, suggests its site; a suggestion which is confirmed by the occurrence further on, from the Lydbrook viaduct, and past the Junction station to Collins Grove (celyn, hollies), of a typical piece of the Dike a mile long. This ends on the edge of the Caldwell rocks which, as is the case on the cliffs further down the Wye, formed the 'Mark.'

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O numerous are the features of interest presented by the Herefordshire portion of Domesday that it is scarcely possible in an introduction to do justice to them all. The position of the county on the Welsh March was the chief cause of those characteristics which, even in the pages of the great record, grim with statistics and finance, reveal a stirring and troubled life, a life sharply distinguished from that of the normal county where men ploughed and sowed in the shadow of the king's peace, free from the ever-present fear of the watchful enemy at the gate.

To that position had been due, even before the Conquest, the arrival of mailed knights, men of the Norman duke, sent to defend the border; the construction of their castles to command the valleys exposed to the Welsh invader; the possession by Hereford burgesses of a warrior's horse and arms, with the liability to service when Wales was invaded in turn; and the curious customary services due from the men of Archenfield, who formed the van or the rearguard when the English host was assailing the Welsh, as the tenants by cornage on the Scottish border formed it when the Scotch were the foe. To it again, after the Conquest, was due the exceptional position of William Fitz Osbern, for whom Herefordshire, as will be seen, was made a palatine carldom, and to whose commanding position and restless activity in the region the Domesday Survey bears invaluable and striking witness. Whether we turn to the important record of the local customs or to the entries relating to Leominster as the type of a great composite manor, or to the glimpses of historical events, or to the important descriptions of agricultural tenants and their services, we find on every side materials for study and speculation, and have much, especially, to learn from the clash of rival systems along a border dividing two races with widely differing institutions; a border which was ever shifting with the ebb and flow of conquest.

For we must not think of the Herefordshire of Domesday as co-extensive with the present county, or even as a district limited by any established boundaries. What Harold had recovered with his light infantry, what William Fitz Osbern and his mailed horsemen could hold at the lance's point, that, at the moment of the great Survey, was all part of Herefordshire—no more and

no less. In the future county of Monmouth, the survey of Herefordshire then includes Caerleon on the Usk and Monmouth on the Wye. are proved to be recent acquisitions by the all-important test which Domesday enables us to apply to the Welsh March. The test of which I speak was the 'hide.' Do we find a district assessed in hides or do we not? In the former case I claim it as an ancient English possession; in the latter case, the case in which the land is reckoned by 'carucates,' I look on it as having been acquired in a more recent epoch. At Caerleon, for instance, there are no 'hides,' but 'viii carucatas terrae,' and so also at Monmouth. When, however, we turn to that portion of the shire of Radnor which Domesday surveys as in Herefordshire, we not only find it assessed in hides but even recognize the ancient five-hide unit. Jutting out between Herefordshire and Shropshire, the Welsh county is surveyed at this point partly under the former and partly under the latter. For when the Domesday Survey was made it was England that here thrust a broad wedge into Wales, a wedge which reached a point at Cascob,<sup>2</sup> 5 miles west of the present border. And the evidence of Domesday is in striking accordance with that of ecclesiastical geography, for the diocese of Hereford still drives this wedge into that of St. David's. Now in this district we meet with the five-hide unit at (Old) Radnor itself (15), Knighton (5), and Norton (5), and are led thereby to suspect it had been English soil perhaps even from Offa's day. bulk, at least, of this district was on the English side of Offa's Dyke. This is a point of historical importance, for Mr. Freeman held that his adored Harold first made it an English possession; 3 and in this he has been followed by Sir James Ramsay.4

On the other hand, the Herefordshire of Domesday was smaller on the north-western border, where several manors now in the Hundred of Wigmore are surveyed by Domesday under Shropshire, and assigned to the Hundred of Leintwardine in that county. It has been alleged by Professor Tait that 'Richard's Castle, Ashford Bowdler, and Ludlow, which if Eyton's identification of the last-named with "Lude" be accepted, were all entered under Herefordshire in Domesday,' are now included in Shropshire.<sup>5</sup> But the church and castle of Richard's Castle are still within the Herefordshire border; Ashford Bowdler was then, as now, included in Shropshire; and Evton's identification of 'Lude' was, it will be shown, erroneous.

Domesday bears emphatic witness to the widespread devastation due to the passage of warring hosts; the fertile valleys between the Malvern Hills

<sup>1</sup> For instance, we read of the lands in Gwent, which William Fitz Osbern had made a fief dependent on his castle of Chepstow, 'in eodem feudo dedit Willelmus comes Radulfo de Limesi L carucatas terrae sicut fit in Normannia' (Dom. Bk. i, 152).

<sup>&</sup>lt;sup>2</sup> Cascob itself is entered under both Herefordshire and Shropshire.

<sup>&</sup>lt;sup>3</sup> Norman Conquest (ed. 2), ii, 473, 684.

<sup>4</sup> Foundations of Engl. (1898), i, 488.

<sup>5</sup> V.C.H. Shrops. i, 287. The whole parish of Richard's Castle still lies ecclesiastically in Herefordshire, but that portion of it which lies beyond the Shropshire border has been transferred to that county as a separate civil parish. The village church and castle, however, remain, as before, on the Herefordshire side. With regard to Ashford Bowdler, Prof. Tait must have followed Eyton, who held that not only that place, but other members of Richard's Castle, i.e. Woofferton, Overton, Batchcott, Moor, &c., were all included in the 5½ hides 'in castellaria de Auretone' held by Robert Gernon (Hist. of Shrops. v, 224). This appears to me a very hazardous conclusion, based on conjecture only. Woofferton and Overton, though in Shropshire, are in Richard's Castle parish, but Ashford Bowdler is not. And as it adjoins Ashford Carbonel (from which only the stream divides it), and was part, like it, of the Richard's Castle barony, it would seem equally possible that the 'Esseford' surveyed under Shropshire comprised both, and that their different suffixes were derived from their respective tenants.

and the range of the Black Mountains were an ever-present temptation to the Welsh, and it was but thirty years since Hereford itself had been sacked by Griffith and his host.6 It was, again, less than twenty since Eadric 'the wild,' the Hereward of the West,' had burst upon the county with his Welsh allies and swept it clear of plunder to the very banks of the Lugg.8 Hereford itself had been all but submerged in the fierce flood of the invasion. We have to remember these things when reading of the 'waste' manors which were so terrible a feature of the Welsh March.9 There was wild woodland at the time of Domesday where the plough had once been sped.10

The Domesday Survey of the county cannot be studied or understood without some knowledge of the political history, the ecclesiastical history, and the physical geography of the March. It will be well to start from that record of singularly early date, which sets forth the cantreds of Wales and of which the Red Book of the Exchequer preserves a corrupt version. We there read 'Talegard, Hereging, Ewias, Strediu, j cantref.'11 At the time, then, when this record was compiled, Archenfield,12 with its 'two sleeves' of Ewias and Ystradyw,18 formed with Talgarth 14 a Welsh cantred. The first two appear in Domesday as politically part of Herefordshire, but they were still ecclesiastically in the diocese of Llandaff, though Archenfield was secured in the next century by the bishop of Hereford, while the bishop of St. David's obtained possession of Ewias, in which diocese, indeed, it remained till 1852. The hilly character of both districts favoured the persistence of Welsh influences, and the valley between them leading to Abergavenny was a highway of invasion from South Wales. From Domesday's curious statement that Earl William had re-fortified the castle of Ewyas (Harold) it may probably be gathered that this stronghold had been raised under the Confessor to keep the district in check, but had been stormed and dismantled by Welsh invaders when they also ravaged Archenfield.

For the limits of Ewias we are virtually dependent on ecclesiastical boundaries, but I think it can be shown that the evidence of Domesday confirms these boundaries in very remarkable fashion. Ecclesiastically, Ewias consisted of the south-western corner of the county between the Black Mountains and 'The Golden Valley' of the Dore, together with a strip beyond the mountains, of which the valley of the Honddy is now in Monmouthshire,16 while a slip beyond it belongs to Herefordshire. But it was not actually bordered by the Dore river, except at Ewyas Harold, its southeastern portion. Now, when we turn to Domesday we find a district styled 'In valle Stradelei' (and once 'Stradel Hundret,') 16 which proves to be the

<sup>6 &#</sup>x27;Rex Grifin et Blein vastaverunt hanc terram T.R.E.' says Domesday of Archenfield. The Annales Cambriae record that Grifin 'Herefordiam vastavit.'

He appears in the Herefordshire Domesday as Edric 'Salvage,' the predecessor of Ralph de Mortimer in several manors in the north of the county.

<sup>&</sup>quot; 'Herefordensem provinciam usque ad pontem amnis Luege devastavit ingentemque praedam reduxit'; Flor. Worc. Chron. (Engl. Hist. Soc.), ii, 2. 10 See below.

<sup>9 &#</sup>x27;Wasta fuit et est . . . in Marcha de Walis.'
11 Red Bk. of the Exch. (Rolls Ser.), 761. 12 Originally 'Ergyng.' 18 Crickhowell in South Brecon.

<sup>14</sup> In North Brecon. 15 The Lacys of Ewyas Lacy must have held the valley of the Honddy on its west side when they founded there the house of Llanthony.

<sup>16</sup> The name is preserved in Monnington Stradel and Stradel Bridge on the east side of the river.

valley of the Dore.<sup>17</sup> And the essential point to be noted in the record is that this district was hidated,<sup>18</sup> and that Ewias was not. So sharply marked is this distinction that while Bacton on the right bank of the Dore (which is in the diocese of Hereford) is assessed in hides (and is indeed a typical five-hide unit), Ewyas Harold (in the Welsh diocese), though just below it on the same bank, is reckoned in 'carucates' like the recent conquests from the Welsh. And the economic evidence affords further confirmation; for although Ewyas Harold was the easternmost point of the district, we find there, instead of villeins, Welshmen paying rent in honey.

The conclusion, therefore, at which we arrive is that the old established boundary of the English realm was the valley of the Dore ('Straddele,')184 though the English had established themselves on most of its right bank, and that, west of this, Ewias remained, even in 1086, economically as well as ecclesiastically Welsh, while even politically its conquest was probably still imperfect. For the castellary of Ewias, as the Normans termed the district of which Ewyas Harold was the head, did not reach to the Black Mountains. This may be gathered from Domesday's statement that Ewyas Lacy (now Longtown), though less than four miles west of Ewyas Harold was outside both the castellany and the hundred.19 The hundred was that of 'Cutestorn,' to which the castellary then belonged, though not hidated; and as Ewyas Lacy was outside it, its lord was holding his own pleas for such men as were then to be found in that wild and devastated region.<sup>20</sup> It appears to me that William Fitz Osbern, in giving this land to his trusted follower, together with four 'waste' carucates within the castellany, was endeavouring to push his frontier to the Black Mountain range and hold down the local Welsh.

When we turn to the other district annexed from Wales, Archenfield, in the south of the county, between the valleys of the Worm and the Wye, we find it, in 1086, not only still Welsh economically as well as ecclesiastically, but also in possession of a local autonomy, which is recognized in Domesday as giving it a position apart from the rest of the county. To it are devoted two sections; the first records 'the customs of the Welsh in Archenfield,' as they existed in the Confessor's day, and is placed on the opening page where we look for custumals in Domesday; the second is a survey of the district, which is placed among 'the king's lands.' The first, after noting the curious duty of three parish priests to act as the king's envoys into Wales and sing masses on his behalf, hastens to start from the

<sup>20</sup> De hac terra habet Rogerius xv sextaria mellis et xv porcos quando homines sunt ibi et placita super

<sup>17</sup> So little known, apparently, was this that when Mr. Freeman came to Florence of Worcester's phrase that Harold, in 1055, 'fines Walanorum audacter ingressus, ultra Straddele castrametatus est,' he rendered it: 'He passed the Welsh border, and pitched his camp beyond the frontier district of Straddele,' rightly identifying the name with that in the Herefordshire Domesday, but unable to locate it beyond denying a statement that it was in Denbighshire. So also Sir J. H. Ramsay (1898), following him, writes that Harold, 'passing through Herefordshire and crossing the border, marched a little way, "not far," into Wales, in fact as far as "Straddele," &c. &c.' (Foundations of Engl. ii, 475).

<sup>18</sup> Assessed in hides.

19 'Rogerius de Laci habet unam terram Ewias dictam, in fine Ewias. Haec terra non pertinet ad castellariam neque ad Hundret.' Mr. G. T. Clark alleged that both Ewyas Harold and Ewyas Lacy 'are mentioned in Domesday as the seats of a castelry, a sort of Honour or superior lordship attached to the castle.' (Med. Mil. Architecture, ii, 42.) It is essential to correct this error, for Domesday clearly recognized but one castellany of Ewias.

assumption that 'Taffy was a thief.' 21 But a sharp distinction is drawn between a Welshman's offences against the property or person of his English neighbours and those against his fellow countrymen. When he slew another Welshman, the penalty was typically Welsh; 22 the dead man's kin were entitled to prey upon him and his kin, and to burn their houses, until the corpse was buried about noon of the following day. And the king received a third of the plunder! From Welsh parallels we may conjecture that the kin extended to sixth cousins of both parties. 23 Again, their dues to the king were strictly limited and distinctive. 24

A distinction seems to be already drawn even in 1086 between Welsh Archenfield, which retained its own customs, and certain estates which, though within its borders,25 had passed into Norman hands. But both districts, one hastens to add, were alike in having never been hidated; both appear as if apart from the hundredal system of the shire; and on both the same primitive renders of sheep and honey are found. The Domesday entries require to be compared with later evidence. In 1212 we find the 'French' and Welsh of Archenfield entered as holding their lands of the king 'in socage' by what one is tempted to call the corporate service of paying £19 18s. a year, and providing fifty serjeants (i.e. soldiers) to serve the king in Wales at their own cost.26 Yet Tregate (in Llanrothal), which was 'in Urchenefeld,' was then held by knight-service, as were Wilton and Kilpeck and Goodrich Castle, with Trewen, all of which are subsequently found to be in Archenfield.27 Under Henry III a valuable entry carefully distinguishes 'Urchenefeld in Wallia' (sic) from Kilpeck (though both were in the 'Hundred of Urchenefeld') and again records the service due from the former as fifty Welshmen in time of war and suit at the hundred court.28 Again yet another entry, temp. Henry III, records with more precision the corporate service:

Tota communitas tenet de domino Rege per serjantiam scilicet quod omnes debent invenire  $\bar{L}$  homines quando dominus Rex volu[er]it ire ad exercitum, semel in anno, in Wall[iam] pro quindecima sumptibus propriis. Et si dominus Rex velit eos plus temporis habere inveniet eis necessaria. Et si in Angl[iam] velit ire erunt sumptibus propriis per unicum diem et noctem. Et si plus eos volu[er]it habere inveniet ut supra. Et debent reddere domino Regi xix marcas per annum.<sup>29</sup>

In spite of the words tota communitas, the service due, we find, could be and was apportioned; for this passage goes on to say that the communitas of certain places now paid their twelve pence from each of them to the bishop instead of to the king, to whom it was due. Moreover, we have

27 Cf. ibid. iv, 161. 'Vindicis animi vitio et naturae Britannicae quae vindictam appetit.'

'Nec dant geldum aut aliam consuetudinem nisi quod pergunt in exercitu regis si jussum eis fuerit.'

35 'Hae villae vel terrae subscriptae sitae sunt in fine Arceneselde.'

<sup>28</sup> 'Quinquaginta Wallens' in tempore guerre nec aliud servicium debet nisi tantum sectam hundr' secundum consuet' de Urchenefeld.' (Ibid. 66.)
<sup>29</sup> Ibid. 72.

<sup>&</sup>lt;sup>21</sup> Cf. Gir. Cambr. Opera (Rolls Ser.), i, 39, 'laici et populi Walliae fures et raptores erant rerum aliarum.' According to Domesday the Archenfield Welshman even stole men and women: 'Siquis Walensium furatur hominem aut feminam.'

<sup>&</sup>lt;sup>23</sup> A most interesting reference (in 1226) to this local custom of compounding a murder with the dead man's kin will be found in *Bracton's Note Bk*. (case 1474), where the king's bailiff and the four (neighbouring) townships assert 'quod talis est consuetudo in Urchinefeldia quod de tali morte licet aliquis convictus sit, bene potest concordiam facere cum parentibus.'

Testa de Nevill (Rec. Com.), 70. Out of this service the Hospitallers were liable for 10s. 6d. and one serjeant in respect of land (in Garway) granted them by Henry II.

seen that land at Garway was charged with a quota of service and of payment, 30 and we learn from another source that the Baskervilles held Orcop in I244

in free socage in the law of Urchenfield, rendering yearly 60 sh. and finding two men for Orcop manor and two footmen for its appurtenances, to go in the King's service towards Wales for fifteen days at his own cost, and one day and one night towards England.<sup>31</sup>

The exact concordance of this definition with that in the passage preceding is very welcome and suggests comparison with the Welsh laws, according to which the uchelwr owed his lord military service for six weeks in the year outside the country and at any time within it.32 Here we have a similar distinction to that which is found in Archenfield.

Returning to Domesday, the one difficulty presented by the theory that the 'Finis' of Archenfield was already distinct from the rest of the district as to service is that the Kilpeck tenantry, we read, after rendering their sestiers of honey and ten shillings in money, are not liable to any 'alium geldum nec faciunt servicium preter exercitum.' This seems distinctly to imply that they shared in the district's liability to special military service. But it is to be observed that these tenants, fifty-seven in number, are not styled villani but bomines, which term is applied by Domesday to the king's men of Archenfield.<sup>38</sup> These fifty-seven men had nineteen ploughs, while the ninety-six king's men had seventy-three cum suis hominibus, a phrase which implies that they themselves had 'men' under them. The importance of the lord of Kilpeck's position is shown by his having also, on the other side of Archenfield, in the Wye valley fourteen 'men' with seven ploughs at Baysham, and five 'Welshmen' with five ploughs at King's Caple.

The development in this district of certain manorial features will be dealt with below, but we have here to deal rather with the survival of others. Apart from their service in the field, the Herefordshire Welsh are distinguished by their payment of honey-rents,34 and by a singular tribute of sheep and lambs. The survey of central Archenfield records its annual payment of 41 sestiers of honey, while its custumal provides a penalty for non-payment of the due. Under Linton, the first manor named among the king's lands, we find the curious note that Ilbert the sheriff receives towards 'his ferm of Archenfield all the customary dues of honey and sheep which used to be appurtenant to Linton in King Edward's time.' Also, that William Fitz Norman (of Kilpeck) has therefrom six sestiers of honey and six sheep with their lambs and twelve pence. Again, under Archenfield itself we read that the king's men pay twenty shillings a year as composition 'for the sheep which they used to give,' while Gilbert Fitz Turold has there a manor on which are four 'free men' with four ploughs, from whom he receives the customary due of four sestiers of honey and sixteen pence. At (King's) Caple five 'Welshmen' with five ploughs are rendering to the lord of Kilpeck five sestiers and five sheep with their lambs and ten pence.

<sup>30</sup> See note 26 above.

s1 Cal. Inq. Hen. III, i, 6. The Baskervilles were already paying 60s. a year or their 'serjeanty' at Orcop in 1212 (Red Bk. of the Exch. [Rolls Ser.], 497). The Inq. p.m. on Walter de Muchegros in 1265 shows him holding 'Ryttyr' [? Tretire] manor, 'by the service of finding 3 footmen in the king's army for 15 days at his own cost.' (Cal. Inq. Hen. III, i, 193.)

32 Palmer, Hist. of Ancient Tenures of North Wales, 77.

33 It is also to be noted that the loid of Kilpeck T.R.E. had the Will name of 'Cadiand.'

Mr. Seebohm has drawn attention to this feature in his English Village Community, 185, 207.

It is singular that in the Welsh districts entered at the commencement of the survey of Gloucestershire, swine take the place of sheep as render, and this is also the case at Ewyas (Lacy), where Roger de Laci used to get 'fifteen sestiers of honey and fifteen swine' from his men. The render of sheep found in Archenfield is found also, one may observe, in Somerset. Several manors in that county are entered as paying a customary due of sheep and lambs to the king's manor of North Curry in the proportion of a sheep with a lamb for each hide. In Herefordshire the due was similarly payable to the king's manor of Linton.

In addition to the obligations dealt with above, the men of Archenfield paid to the king ten shillings for hearth money (fumagio); and from each of them, if a 'free man,' was due (as from a burgess of Hereford 36) his war horse (caballus) and arms—and if a 'villein' an ox—at his death. It would seem probable that these terms represent the Welsh uchelwr and taeog, 37 but whether this due is the Welsh Ebediw is doubtful in view of its close assimilation to the English 'heriot.' One notes with some surprise the free man's war horse in Archenfield, remembering how the Welsh invariably fought on foot and how even the English of Herefordshire were unused to fighting them on horseback, though Earl Ralf compelled them to do so in 1055.88 Lastly, there was the duty of attendance at 'shiremoot' and hundred court, the former limited to a delegation of six or seven leading men. The reference to a hundred court is important because we should infer from the Domesday survey that 'Archenfield' was a district by itself, not comprised in any hundred. But there must obviously have been a court of some kind at which the penalties enumerated by Domesday as due from the Welsh by 'custom' could be enforced. 39

The hundred of Wormelow, 40 which now represents, in the main, Archenfield, is only once mentioned in Domesday (immediately after Archenfield), and has only one manor assigned to it, namely, 'Westwood,' a manor of which the limits, and indeed the identity, are obscure. But Westwood was given to St. Peter's, Gloucester, as 'in Jerchenfeld,' and its church was in the deanery of Archenfield. As, however, we find it in Domesday assessed in hides, it must have represented an English conquest of old standing. 41 On the right bank of the River Wye lay Baysham, not hidated, and reckoned ambiguously by Domesday as 'in fine Arcenefelde.' Below it again, further down, the king's manor of Cleeve with Wilton and Ash represents another English conquest on the right bank, for we find it duly hidated and reckoned as in Brooms Ash Hundred. Yet, economically, it was still Welsh in part;

<sup>36</sup> 'Cum caballo serviens.' So also the Bayeux tapestry: 'Hic exeunt caballi de navibus.' Cf. the Spanish 'caballero' (our 'cavalier.')

37 This term is rendered 'villanus' in the Latin translation of the Welsh laws, and subsequently 'bilain.'

38 'Anglos contra morem in equis pugnare jussit' (Florence of Worc.).

40 It takes its name from Wormelow tump (an obvious pleonasm) between Llanwarne and Much

Dewchurch. See also p. 299 below.

<sup>35</sup> See Domesday, fol. 92, and V.C.H. Somers. i, 428. In one case a 5-hide manor pays 30 pence, evidently in commutation for five sheep with their lambs: this, if applied to Archenfield, would give us forty sheep for the 20 shillings of commutation.

<sup>39</sup> The Welsh laws recognize a somewhat similar service in the 'rhaith gwlad' or 'verdict of the country,' in which those liable had to participate.

<sup>&</sup>lt;sup>61</sup> Domesday records that one of its hides 'has the Welsh custom,' and the others the English, and a Welshman paying a rent in honey is found on part of the manor. An entry relating to the Dore valley shows the same distinction.

Welshmen with eight ploughs of their own were, as usual, paying a rent in honey and in coin, while, under the Confessor, land which his successor had included within his forest bounds had been used to render six sestiers of honey and six sheep with their lambs, the same render that we have seen paid to the Norman lord of Kilpeck. Thus on the Wye, as on the Dore, Domesday enables us to trace the boundary lines of ancient conquest where the English folk had here and there fought their way across the stream.

The ancient system of assessment, based on the 5-hide unit, <sup>42</sup> of which Radnor is an instance, <sup>43</sup> is fairly well illustrated in our county, as in Gloucestershire to the south and Worcestershire to the east. <sup>44</sup> The canons' manor of Bromsgrove is entered as of 30 hides, and the two royal manors of 'Lene' as of 15 hides each. Cowarne was a 15-hide manor, and so was Pencombe, and there are others of 10 hides and 5 hides. <sup>44a</sup> But until the parochial history has been written and the hundreds reconstructed it will not be possible to establish the assessment of the county in detail.

The Survey presents, however, so many points of interest in its historical and economic aspects that these alone would provide ample matter for discussion. And its evidence can be made to yield information of greater importance than would be gathered from a mere perusal of the bare text.

Close study of the great Survey enables us to reconstruct more completely than hitherto the Conqueror's treatment of the Welsh March. The palatine position of the earl of Chester as guardian of the northern March is a fact familiar to historians from the long continuation of his powers; that of the earl of Shrewsbury, the guardian of the middle March, is fully recognized by Professor Tait in his brilliant essay on the Shropshire Domesday; <sup>46</sup> but that William Fitz Osbern, earl of Hereford, held a similar position on the southern (or 'western') March has not yet, it would seem, been fully grasped. The fact that his earldom had come to an end, through the treason and downfall of his son (1074), years before the Domesday Survey has naturally made that position more difficult to prove.

The clue is afforded by William's dealings with the king's own manors, dealings which show that he must have been invested with the same peculiar rights as Roger de Montgomery in Shropshire. We read of the latter that 'the same Earl Roger holds of the King the city of Shrewsbury and the whole county (comitatum) and the whole demesne (dominium) which King Edward used to have there, and twelve manors with fifty-seven berewicks belonging thereto,' &c. &c. 46 And the royal demesne manors in that county are entered accordingly as his own land. What we have to show is that in Herefordshire William Fitz Osbern similarly stood, in this respect, in the king's shoes. We start from Orderic's statement that the Conqueror 'gave to William Fitz Osbern, Steward of Normandy, the Isle of Wight (Vectam) and the county (comitatum) of Hereford.' In the Isle of Wight, as the writer has shown, it is possible to trace his actual lordship and his possession of royal manors—especially Bowcombe, in which he fixed his seat at Caris-

<sup>42</sup> See the writer's Feud. Engl. and Prof. Maitland, Dom. Bk. and Beyond.
43 See p. 264 above.
44 In Shropshire also, to the north, there is ample evidence of the use of a 5-hide unit; V.C.H.
Shrops. i, 284.

<sup>44</sup>a Among the manors surveyed under Shropshire, Leintwardine and Buckton were assessed at 5 hides each, and Brampton (Bryan), and the Pedwardines at 2½ hides respectively.

45 V.C.H. Shrops. i, 288.

46 Fol. 254.

47 Hist. Eccl. (ed. Sociétié de l'histoire de France), ii, 218.

brooke-by his benefactions to his Norman foundations at Cormeilles and La Vieille Lyre, benefactions which included also, on the mainland, charges on the revenues of Southampton. And this evidence is supplemented by incidental allusions to the former extent of his possessions.<sup>48</sup> Now when we turn to Herefordshire, it is precisely similar evidence that enables us to prove our point, for although Domesday shows us the manors of ancient demesne which King Edward had held in the hands of King William, it also records the gift of their churches and tithes to the earl's abbey of Cormeilles. Marden and the manor which follows it are, indeed, exceptions,49 but in both cases Domesday shows us that the earl had dealt with these manors. Again, among Roger de Laci's lands we find two of King Edward's manors; but we are expressly told that Earl William had given them to Ewan the Breton, and on one of them the abbey of Cormeilles had received the usual gift of the tithe and a virgate of land. The Pipe Rolls of the reign of Henry II show that these gifts were deemed valid,50 for they enter the earl's two abbeys as receiving f 12 a year each de decimis constitutis from the revenues of the county. Again, it is clear that at Hereford Earl William was holding the same position as Earl Roger at Shrewsbury, the revenues of which town, Domesday tells us, were paid to the earl (not to the king). For, in the first place William Fitz Osbern took upon himself to grant to the French burgesses of Hereford 'the laws and customs of Breteuil,' 51 his Norman lordship; and in the next, he boldly transferred, for financial purposes, to Herefordshire several Worcestershire and Gloucestershire manors, which are accordingly surveyed, as a separate group, under this county. What he actually seems to have done is to have made these nine manors, which he held in his private capacity, pay their rents ad Hereford, as part of the revenues he drew from his possession of that city. The strange thing is that this personal arrangement should have survived the downfall of his son and thrown the survey of these counties into such confusion.

The evidence on these outlying manors strengthens the theory above set forth, for of three of them it is expressly recorded that the earl himself had bestowed their tithes on his Norman foundations.<sup>52</sup> These manors enable us also to see how his great possessions were built up apart from his holding of royal demesne, and prove that, as in Herefordshire itself, he had obtained some of Queen Edith's lands, a fact which, as Professor Tait observes of his dealing with Cleobury (Mortimer) in Shropshire, proves that the queen cannot, as Mr. Freeman imagined, have retained all her possessions till her death.<sup>53</sup>

<sup>49</sup> So also is Monmouth [then in the county], but I have argued that the confirmation of revenue there to the abbey of Cormeilles proves that William Fitz Osbern had held it (Studies in Peerage and Family History, 185).

51 See below. 51a See below.

<sup>52</sup> 'Hujus manerii aecclesiam cum terra ibi pertinente et cum sua decima dedit comes W. S. Mariæ de Cormeliis, etc. . . . Hujus manerii decimam et æcclesiam cum presbitero, etc. . . . dedit comes W. æcclesiae S. Mariae . . . Willelmus comes dedit decimam hujus Manerii S. Mariae de Lire,' etc. (fol. 1806).

58 V.C.H. Shrops. i, 289, n. 45. In justice, however, to Mr. Eyton, it should be observed that he laid stress on this Cleobury evidence as proof that Edith must have been deprived of part, at least, of her estates before 1071 (Hist. of Shrops. iv, 194). But the evidence for Edith's identity is very slight. In Herefordshire alone, and only on one manor there, is Ralf's predecessor styled 'regina.'

<sup>48</sup> V.C.H. Hants, i, 408-10.

of It is very noteworthy that his local legislation also remained valid in at least two matters, viz., the special pecuniary privileges that he granted (1) to his French burgesses at Hereford, (2) to his knights in the county. William of Malmesbury writes, of the latter:—'Manet ad hanc diem in comitatu ejus apud Herefordam legum quas statuit inconcussa firmitas ut nullus miles pro qualicumque commisso plus septem solidos solvat,' &c. In other counties they would have been fined much more.

But the palatine position of Earl William is also shown by the Domesday references of his grants of land to his followers. We learn that he enfeoffed Thurstin the Fleming, a predecessor of Roger Mortimer, both in Herefordshire and in Shropshire; that he similarly enfeoffed Thurstin's fatherin-law, known as Alvred of Marlborough; that he bestowed lands on Walter de Laci, Gilbert Fitz Turold, Ewen the Breton, and 'King Mariadoc' of Wales; while an incidental entry tells us that Hugh L'Asne had received from the earl the lands of his predecessor, Turchil the White. The earl also gave the bishop one of Harold's Herefordshire manors 'in exchange,' we read, 'for the land where the market is now (held) and for three hides of Lydney (Lidenegie).' This implies that the earl provided a new market-place for what, we have seen, was virtually his own town of Hereford. As for the 3 hides of 'Lidenegie,' we duly find them entered (under 'Lindenee') in Gloucestershire as obtained by the earl from the bishop of Hereford's demesne. Another Gloucestershire entry shows us the earl bestowing land on Ansfrid de Cormeilles, which implies that, as might be expected, it was he who enfeoffed that considerable landowner in Herefordshire.

It is tempting to compare the Domesday record of the earl's doings in Gloucestershire with that of his activity in his own earldom; but one must only deal with those entries which illustrate his Herefordshire position. Under Gloucestershire, for instance, we find duplicated—though with details which differ widely—the entries of those manors of Forthampton (co. Gloucester) and Hanley Castle (co. Worcester), which are surveyed under Herefordshire because the restless earl had annexed their revenues to that of Hereford itself: that this was the result of his action is shown even more clearly by the Gloucestershire entry.<sup>64</sup> Although he was not earl in Gloucestershire, his peculiar position on the southern March involved his using that county as well as his own for a base of operations against the Welsh. Indeed the various lines of advance must have involved some complication; the castellany of Caerleon is dealt with under Herefordshire, but the revenue of Caerleon 56 is entered as appurtenant to the castle which Earl William had founded at Chepstow ('Estrighoiel,') a castle entered under Gloucestershire.

Castles, we know from the chroniclers, he had been charged to build, and with castles Domesday specially connects him, from Chepstow and 'Nesse' in the south <sup>56</sup> to Wigmore in the north, a castle which like Clifford he is expressly said to have founded, even as he re-founded that of Ewyas (Harold). The term castellaria is a rare one in Domesday, and, with the exception of Hastings, and possibly Lewes <sup>57</sup>—both of them the heads of rapes—the only castles with which it is connected would seem to be those of Caerleon, Ewyas Harold, Clifford, Richard's Castle ('Auretone'), Montgomery and Dudley. Of the castellaria of Clifford it is specially recorded that it is 'of the Kingdom of England and is not in any Hundred.' We note that, accordingly, it was not hidated, but was reckoned to contain 26 plough-lands in addition to four others which belonged, not to its lord, but to

55 'Redditio de carleion.'

<sup>&</sup>lt;sup>54</sup> 'Haec terra fuit W. comitis; modo est ad firmam regis in Hereford.' The two manors are entered as having formerly belonged to Tewkesbury.

<sup>56</sup> In Nesse sunt v hidae pertinentes ad Berchelai quas W. comes misit extra ad faciendum castellulum.'
57 Castellatio' is the term in the case of Lewes. Richmond also seems to have had a castellany.

Roger de Laci. Roger de Laci similarly held 4 carucates in the castellaria of Ewyas (Harold), in which Henry de Ferrers also had 32 acres. Lastly, Robert Gernon had 5½ hides in the castellaria of Richard's Castle ('Auretone'), a district which is not mentioned among the lands of that castle's lord. There we observe that Richard's Castle was surrounded (like Wigmore) by hidated land, while Ewyas (Harold) and Clifford, on the edge of the Welsh border were surrounded, like Caerleon, further west, by carucates, not by hides.

Of late years it has been fully recognized that, while the positive evidence of Domesday as to the existence of a castle is of great value, its negative evidence counts for nothing. It is also now well established that the stronghold of which the distinctive feature was a great moated mound, intended to carry along its crest a wooden palisade, and usually provided with appurtenant earthworks forming a court or courts, was the type normally employed by the Normans for some time after the Conquest.<sup>58</sup> The evidence of extant Herefordshire earthworks in conjunction with that of the chroniclers and of the Domesday record have proved of the highest value in establishing this proposition and demolishing the theory enunciated by Mr. Clark, 9 whom Mr. Freeman unfortunately followed, that they were far earlier than the Conquest. It can now be safely asserted that Richard's Castle and Ewyas Harold, which are of this type, were raised by Norman lords under the Confessor, while the latter was re-fortified by Earl William Fitz Osbern, who also raised at Wigmore a similar stronghold. That which he formed at Clifford was, it is true, different; but it is equally recognized that when, as at Clifford, the Normans found ready to their hands a natural position of great strength, they had no need to raise a mound, and merely fortified what they found.

In view of the important earthworks still extant at Kilpeck, and of the position occupied by its lord and his descendants, it is probable that, in spite of Domesday's silence, the castle there was already in existence. At Hereford itself there was certainly a castle, which had a moated mound (mota), though Domesday is silent on the subject. At Longtown also, where the Lacis placed their Ewias Castle, a mound preserves its site. 60 Outside the county, though mentioned in its survey, was Caerleon, with its moated mound, and higher up on the Usk, Abergavenny, though nowhere mentioned, may, I suspect, have already possessed a castle on its extant mound, as a stronghold of a Herefordshire lord, Turstin the son of Rou.61 Before leaving the subject of castles one should note that at Clifford and Ewyas Harold we have specially good examples of the practice of Norman barons by which they assigned to their knightly tenants small estates around their own castles. We find this practice illustrated at Carisbrooke, the chief seat in the Isle of Wight of Earl William Fitz Osbern,62 and at Montacute Castle in Somerset. But it would be hard to find a better instance than that of the nine milites,

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<sup>57</sup>a See note 5 above.

58 See the writer's 'Castles of the Conquest' in Arch. lviii, 313 et seq.
59 See his Med. Mil. Archit. passim.

60 This castle is of a special type.

<sup>61</sup> I have shown in my Studies on Peerage and Family History that Turstin, who already held a great estate on both banks of the Usk, and may have been William de Scohies' tenant at Caerleon, was succeeded by the Ballon family, whose lordship of Abergavenny may possibly imply that this was Turstin's nameless lordship on the Usk.

<sup>69</sup> V.C.H. Hants, i, 408-9.

with Norman names, at Ewy is Harold, unless it is surpassed by the ten francigenae at what I take to be Belvoir Castle. 63

In addition to the actual 'castles' there is the interesting mention of fortified houses (domus defensabiles) at Eardisley and 'Walelege,' of which the former is expressly recorded (like Clifford) to have been outside any hundred and free of all taxes.

Valuable as is the evidence of Domesday for the doings of William Fitz Osbern as earl of Hereford, it has also much to tell us of his no less active predecessor 'Earl Harold.' And what it tells us is not to his credit. Mr. Freeman, who has dwelt on the importance of Harold's tenure of the earldom, 44 was naturally loth to admit that his hero was guilty of the church spoliation with which the great record so directly charges him; 45 but while he was justified in urging that we hear only the accusation, not the defence, we have, on the other hand, the fact that William, who did not readily part with that which had come into his hands, restored these manors to the church on the ground, expressly stated, that it had been wrongfully deprived of them.

In addition to the manors of which he is stated to have deprived the church of Hereford he had large possessions. The great manors of Cleeve with Wilton, adjoining Ross, on the Wye, and of Much Marcle, in which the Conqueror had succeeded William Fitz Osbern, had been Harold's at The entire fief that Alvred of Marlborough was holding in 1086 had formerly belonged to Harold, and it is significant that we read of Burghill and of Brinsop 'Hope' that Osbern, uncle of the above Alvred, had held them when Godwine and Harold were exiled, which seems to imply that they were Harold's even before that event. Burghill appears to have been a 'comital' manor, for 'the third penny' (of the pleas) of two hundreds appertained to it. And this remark applies also to Great Cowarne on the same fief, to which 'the third penny' of three hundreds had been appendant. Of Pembridge, another manor on this fief, we read that Godwine and his son Harold had wrongfully taken it from the house of St. Guthlac (at Hereford), an entry which reminds us that father and son were included in these charges of sacrilege. Several other manors about the county are mentioned as having been Harold's, in addition to those which were held by his thegas; but the only one which calls for special notice is that of Old Radnor.

The distribution of the lands of Herefordshire among the invading Normans was largely, as has been said, the work of William Fitz Osbern. Osbern, indeed, of Richard's Castle, son of the well-known Richard Scrob, was holding, in 1086, lands which, in the main, had been his before the Conquest; but the entire holding of Robert Gernon had formerly been Richard Scrob's. I have elsewhere argued 66 that the other Osbern whom

<sup>63</sup> See my paper on 'The Origin of Belvoir Castle' in Engl. Hist. Rev. xxii, 508.

<sup>64 &#</sup>x27;The government of Herefordshire was so important that it could not be safely placed in any hands but those of the foremost man in England.' . . . 'Harold's Herefordshire earldom is so important as a piece of national policy, and it is connected with so many points in Harold's character, that I have spoken of it somewhat largely in the text.' (Norm. Conq. vol. ii.) Mr. Freeman considered that his tenure of the earldom began, at latest, in 1057, but did not feel sure whether he held it separately or as part of his great earldom of Wessex.

<sup>65</sup> Harold is charged with wrongful possession, in all, of seven estates belonging to the church of Hereford and one of St. Guthlac's.
66 See Feud. Engl. 317-26.

we find associated with the county before the coming of Earl William, namely, Osbern 'Pentecost,' was not, as Mr. Freeman assumed, Osbern of Richard's Castle, but was identical with Osbern, uncle of Alvred of Marlborough. From this, I have urged, it would follow that 'Pentecost Castle,' of which the English chronicle speaks, was really that of Ewyas (Harold), which Earl William 're-fortified' for Alvred, when he installed him there on the Welsh border.

Of those who were wholly unconnected before the Conquest with the county, Walter de Laci, the greatest of the lay tenants in Gloucestershire, was also the chief recipient of Herefordshire lands, those of his son and successor Roger filling more than five columns of Domesday Book. Walter,67 whom Earl William placed at what was afterwards Ewyas Lacy,68 as if to strengthen the hands of Alvred of Marlborough,69 is found with his lord fighting the Welsh, but when Earl William's son Roger rose in revolt, Walter espoused the king's side, and thus made himself secure. He was a benefactor both to St. Peter's Gloucester and to St. Peter's Hereford, and was accidentally killed shortly before the Survey, while inspecting the work done for him at the latter religious house. Of his English predecessors one, This was Edwi cilt, a Herefordshire at least, deserves special notice. magnate, whom he had succeeded, apparently, in seventeen manors, including Weobley, where Walter had a park, and which became the chief seat of his descendants. Ælfwine ('Elwin,' 'Alwin'), the son of the English noble, was allowed to retain two of the manors, but only as Walter's tenant. In addition to the lands entered as his fief, the lord of Weobley had also secured some of the Leominster manors, and did not disdain, here and there, to hold as an under-tenant, especially at Holme Lacy, where the bishop of Hereford was his lord.70

Ralf de Mortimer, the founder of a great Marcher house, the ancestor of a line of earls <sup>71</sup> famous in English history, was lord of a considerable territory in northern Herefordshire <sup>72</sup> and southern Shropshire, of which Wigmore Castle was the *caput*. As to Wigmore, Domesday appears to be contradictory in its statements: under Leominster it tells us with precision that Wigmore, 'in which Wigmore castle stands,' was a half-hide in which Ralf had succeeded Ælfward; but under Ralf's fief we read that earl William constructed the castle in the 'waste land called Merestun, which Gunuert <sup>73</sup> had held.' As there were 2 hides at this 'Merestun' one is tempted to see in it that 'Merestone,' of 2 hides, which had been a member, we read, of the royal manor of 'Lene,' but which Ralf was holding in 1086. This, however, leaves the discrepancy unexplained. Among his predecessors before and even after the Conquest the most notable were Queen Edith <sup>74</sup> and the famous Edric the

<sup>67</sup> Like Ilbert de Laci he came from Lassy in what is now the Calvados.

<sup>68</sup> Now Longtown.

<sup>&</sup>lt;sup>69</sup> He was also installed in the 'castlery of Clifford,' further north on the border as if to strengthen Ralf de Tosni.

<sup>&</sup>lt;sup>70</sup> In 1166 the bishop complained that Hugh owed him the service of two knights, but had withdrawn a quarter of it, Lib. Rub. 279.

The name of Mortimer was revived as the second style of an earldom in 1711 for Robert Harley of Brampton in this county, whose ancestor had purchased Wigmore in 1601, and who was created at the same time Lord Harley of Wigmore.

<sup>79</sup> Partly surveyed under Shropshire in Domesday.

<sup>73</sup> This must be identical with his predecessor at Brampton and part of Lingen.
74 Who was apparently the 'Eddit' and 'Eddiet' who had preceded him.

Wild whose revolt in the early days of the Conquest this Ralf is alleged to have assisted in crushing. But he had also secured at Leintwardine one of King Edward's manors. Oidelard, his tenant at Downton and Buckton,76 held of him manors also in Hampshire, Berkshire, Wiltshire, and Oxfordshire, a curious illustration of the widespread interests even of an under-tenant.

East of Wigmore, on the Shropshire border, the mighty mound of Richard's Castle 76 was the head of his son's extensive fief, of which the local portion lay, like Ralf's, in northern Herefordshire and southern Shropshire; 77 but comprised a number of manors in the adjacent portion of Worcestershire and extended to the west into what is now Radnorshire.78

Hitherto we have dealt with fiefs which descended to the heirs of their lords, as the Honours of Weobley, Wigmore, and Richard's Castle. When we come to that of Hugh 'the Ass,' which had similarly its caput in this county, we have to recognize it, later on, in the hands of the Chandos family by the name of the Honour of Snodhill. Snodhill, the site of a castle, is not mentioned in Domesday, but stood doubtless in one of those manors held by Hugh in the Golden Valley, of which it guards the northern entrance. Just beyond the present Welsh border, Hugh, as we read under Shropshire, held Knighton and Norton, where afterwards at least there were castles, though Domesday knows them only as manors wasted by war. Like so many of his Herefordshire manors, they had been held by 'Leflet,' an English lady, whom he had succeeded also in her tenure of the Leominster manor of Hatfield. But some of her lands had been secured by Nigel the physician, which led to a dispute as to title between him and Hugh at Sutton, the latter apparently alleging that he had held in the days of William Fitz Osbern. Hugh's other predecessor was Turchil the White, whose lands had been given him by Earl William, as we learn from his claim that the gift included Radnor itself. As follower of the earl, Hugh was a witness to the charter by which he granted to his monks of Lyre their lands in England and to one which he granted to the monks of St. Evroul. Hugh himself granted to Lyre his Herefordshire manor of Ocle, which is hence known as Lyres Ocle to this day, and his gift was confirmed by Henry I, the first two witnesses being Herefordshire Domesday barons, Osbern Fitz Richard and Richard Fitz Ponz.79 was this his only gift to the abbey that his lord had founded.<sup>80</sup>

A fief of somewhat peculiar character is that of which the caput was the castled mound of Kilpeck. For William Fitz Norman, its holder, was the local forester in fee. Neither this fact nor his tenure of Kilpeck is mentioned under his fief; but an entry under Terra Regis informs us that he was holding the Herefordshire forests at an annual render of f 15 to the crown. Under Archenfield we find his tenure of Kilpeck, Baysham, Caple, and under Leominster that of 'Bradeford' 81 and Lye. 812 Beyond the southern border of the county he held lands in Gloucestershire charged with the keeping of the

<sup>75</sup> On the Shropshire border.

The writer appears to have been the first to point out that the 'Auretone' from which Richard's Castle ed its Domesday name was Orleton.

"Where Burford was his chief manor. derived its Domesday name was Orleton.

<sup>78</sup> There were outlying portions of the fief in Warwickshire, Oxfordshire and Bedfordshire (see list of them in Red Bk. of Exch. (Rolls Ser.), 603-5, and the writer's paper on them, at a later stage (1309), in Ancestor, i, 246-51).

10 See my Cal of Doc. France, no. 402.

<sup>246-51).

60</sup> Robert de Chandos confirmed the gifts by his antecessor of Ocle and Sutton, with the churches of (Fown)

Condendal Man. vi. 1002). Hope and Sapperton (Glos.) and tithes from Credenhill (Dugdale, Mon. vi, 1093).

<sup>61</sup> See 295 below. 81a In Aymestrey.

Forest of Dean and one estate at Little Taynton by the service of keeping 'the hay of Hereford.' 82 William's son Hugh accounted for the Herefordshire forests in 1130,83 and in 1166 'Hugh son of William the forester of Herefordshire in Wales' made a return for the fief.84 He was doubtless also the Hugh 'Forester' returned as holding one fee of the lord of Monmouth in 1166.

According to the same great return the Cormeilles fief, which was one of ten knights' fees, was reckoned to belong to our county, although its Gloucestershire manors are in Domesday more numerous. It is also from the survey of the latter county that we learn of Ansfrid, who held it in 1086, having received land in one place from Earl William Fitz Osbern (founder of the abbey at Cormeilles), and in two others from Walter de Laci, whose niece he had married.<sup>85</sup>

A later marriage connected the houses of Cormeilles and of Monmouth; for, some half a century after Domesday, Richard de Cormeilles <sup>86</sup> and Robert his brother gave Tarrington church to the priory of Monmouth at the instigation of 'their uncle' Baderon of Monmouth. <sup>87</sup>

This Baderon was the son and heir of that William son of Baderon who is found in Domesday holding a fief which was similarly reckoned in 1166 to have its caput in our county; that caput was Monmouth Castle, which Domesday treats as in Herefordshire. Except for two outlying manors in Hampshire, William's fief lay in Herefordshire and Gloucestershire, his lands in the latter county lying partly between the Severn and the Wye. great estate at Monmouth is surveyed separately from his Herefordshire lands, apparently on the ground that he was only keeper (custos) of Monmouth Castle. But his own estate there, we find, was six times as valuable as the king's share in Monmouth, and he had already bestowed the chapel of Monmouth Castle, with its endowments, on the abbey of St. Florent de Saumur. To the records of that house we are indebted for much valuable information on himself, his house, and their lands.88 I have elsewhere shown 89 that William had succeeded in the Monmouth estate his father's brother Guihenoc on the latter assuming the cowl. Guihenoc and his brother Baderon came from Epiniac and La Boussac, close to Dol in Brittany, and among their Breton followers, as his name implies, was Salomon, who received a holding on the fief at Hope Mansel and Ruardean, athwart the Gloucestershire border. and William his son were the first witnesses to a confirmation of the charter, by which Guihenoc and his nephew William gave their Monmouth endowment to the abbey of St. Florent.<sup>90</sup> The fief of the lords of Monmouth was one of sufficient importance to be charged with the military service of fifteen knights.91

Just as the lord of Monmouth gripped the passage of the Wye at the point where it left the county, so the lord of Clifford commanded the impor-

<sup>53</sup> This is proved by later evidence. The tenure is the subject of an Inq. p.m. in Cal. of Inq. Hen. III, i, 9, but, as it is damaged, the fact has not been recognized.
53 Rot. Pip. 31 Hen. I.
54 Liber Niger.

<sup>&</sup>lt;sup>86</sup> In Herefordshire he was an under-tenant of Laci at Tarrington, where he held also in chief.

Miles, earl of Hereford.

87 See my Cal. of Doc. France, no. 1139.

88 Ibid. pp. 406-14.

89 Studies in Peerage and Family Hist. 120 et seq.

80 Cal. of Doc. France, 407.

<sup>91</sup> The actual territory of Domesday 'Monmouth' lay about the town in what is now Monmouthshire, but must have extended into Herefordshire at one point at least, for one of its lords gave to St. Florent the church of St. Ruald of Tregate, i.e. Llanrothal.

tant point where it entered the county from Wales. High upon its red sandstone steep, Clifford Castle had a natural strength that rendered needless the moated mound associated, especially in this county, with the strongholds of Norman lords. But another of their features it possessed: about it lay a 'castlery' (castellaria), of which the extent should be observed. The lord's demesne was of three plough-lands; the holdings of his knightly tenants contained no fewer than twenty-three among them. And these holdings forcibly illustrate my theory of the class of men who held around a baron's castle. For a 'Roger,' the first holder, was no other than Roger de Laci, the greatest man in the shire; 92 'Drogo,' the third, was Dru Fitz Ponz, founder of the famous house of Clifford and a Herefordshire tenant-in-chief. held of Ralf at Ford and Sarnesfield in this county; also a Gloucestershire manor in Nether Swell, and a curious outlying one in Berkshire, of which Domesday tells us that it had belonged to 'the fief of Earl Roger,' and therefore to William Fitz Osbern. Herbert, the fourth holder, was probably a tenant of Ralf in Worcestershire so named, who also held of him at Eaton in this county, while 'Gilbert,' the second, was clearly Gilbert the sheriff, of whom we read that he held the castle and the borough (burgus) and the plough-lands at ferm when the Survey was made.

Ralf de Tosny (Todeni), lord of the fief, was no ordinary baron. Born of a princely Norman house, he was brother-in-law to William Fitz Osbern, who had installed him at Clifford. His great fief was strangely divided, one portion of it lying in Norfolk, and the other in Herefordshire, Worcestershire, and Gloucestershire. He fixed his seat, however, in neither portion, but selected Flamstead in Hertfordshire, a county in which he only held two manors. It has not, perhaps, been observed that his fief, though so extensive, was, apparently, not charged with any military service, a peculiarity which prevents us from learning to which county it was reckoned to belong. Grandson of a count of Barcelona, stepson of a count of Evreux, son-in-law of Simon de Montfort, brother-in-law of the earl of Hereford, and father-inlaw of a king of Jerusalem, Ralf was, as I have said, no ordinary baron. His father Roger had founded, on his lordship of Conches, the abbey of St. Peter de Castellion. On this foundation Ralf bestowed one of his Herefordshire manors, which thence derives its distinctive name of Monkland, together with tithes from others; 98 and within the walls of the abbey he found burial. He also, as Ralf 'de Conches,' bestowed lands in England on St. Evroul in reparation for injury to that house, among the witnesses to his charter of donation being two Herefordshire tenants-in-chief, Gilbert Fitz Turold and Roger de Muchegros.94

The outlying 'castlery' of Caerleon, where William de Scohies had begun to reintroduce cultivation, is treated in Domesday as the head of a Herefordshire fief to which must be added the Leominster lands held by its lord. The whole was afterwards known as the Honour of Dilwyn from one of its constituent manors, of and its most interesting under-tenant in 1086 is Bernard, who held Croft with Wharton, of and Newton, of and who is claimed as founder

97 In Hope under Dinsmore.

<sup>92</sup> See the entry under his own fief, where it is stated that these four plough-lands had been given to his father Walter.
93 See my Cal. of Doc. France, 138-9.
94 Ibid. 219.

<sup>95</sup> This is proved by the Testa de Nevill and by Feudal Aids. 96 In Leominster.

of the ancient family of Croft. But William's fief was as strangely severed as that of Ralf de Tosny, for, besides two Dorset manors, it comprised lands in all three of the eastern counties.

We have now dealt with the fiefs specially associated with Herefordshire, and may glance at the holdings of barons who belonged to other counties. A foremost place is claimed by those of Durand of Gloucester and of Drogo Fitz Ponz, because the former represents the house which obtained the earldom of Hereford, while the latter, as has been said, founded the house of Clifford.

Durand de Gloucester was otherwise known as Durand the Sheriff (Vicecomes) and is, indeed, once so styled in the Herefordshire portion of Domesday; 98 for his is one of those cases in which the sheriff of a shire adopted its capital as his surname. But an entry under his Herefordshire lands speaks of King William giving a manor to Roger 'de Pistes,' and, as Mr. Alfred S. Ellis in his valuable researches has shown, Roger and Durand derived this name from Pîtres on the Seine above Rouen.99 Roger, we learn from Domesday, had received lands from William Fitz Osbern, and was doubtless one of those whom he had led in his inroads on Wales, for Durand is found at the date of the Survey holding Caldicot on the Severn, where the highway into South Wales traverses the Nedden Brook. Durand had succeeded his brother Roger as sheriff-in-fee of Gloucestershire, and had given, Domesday tells us, land which he held in Archenfield to St. Peter's for his brother's soul. He was in turn succeeded as sheriff by his brother's son Walter, who is found in the Survey holding jointly with him at Rochford and Laysters in our county, and who subsequently obtained from the bishop of Hereford, under Henry I, Little Hereford and Ullingswick to hold by knight's service. This Walter was father of Miles, created earl of Hereford in 1141.

Dru Fitz Ponz was the tenant in capite of some small Herefordshire manors, but is chiefly of interest here for his connexion with Clifford and its lord, of which I have spoken above. His successor, Richard Fitz Ponz, who is supposed to have been his brother, married Maud, daughter of the above Walter de Gloucester, by whom he was father of Walter, who assumed the surname of Clifford. As befitted a lord marcher, 'Richard son of Ponson' established himself in Wales, holding Llandovery and Cantref Bychan within thirty years of Domesday. 101

The lands of Gilbert Fitz Turold were somewhat curiously scattered, but—save for single manors in Warwickshire, Cambridgeshire, and Essex—lay in the four western counties of Worcester, Hereford, Gloucester, and Somerset. He was evidently yet another of those whom Earl William Fitz Osbern installed on the Welsh border, for in our county we find it recorded that the earl gave him 'Walelege' with its domus defensabilis and its 'great wood for hunting.' He is elsewhere recorded to have endowed Evesham Abbey with lands for the earl's soul. In addition to the lands entered as his fief he held one of the Archenfield manors. He is believed to have forfeited his fief, and the descent of his lands is obscure. But Rotherwas on the Wye was afterwards held of the Honour of Gloucester by the De La Mare family, who also held of that honour lands in Gloucestershire which had been Gilbert's. It is at least probable that Ilbert Fitz Turold,

<sup>98</sup> Under Leominster.

<sup>100</sup> See my Anct. Chart. (Pipe R. Soc.), 21.

<sup>99</sup> Bristol and Glouc. Arch. Trans. iv.

<sup>101</sup> See my Studies in Peerage and Family Hist. 215.

whose fief follows Gilbert's, was his brother, and possible that the rather uncommon name of Ilbert may point to some relationship to the Lacis. A 'William and Ilbert his brother' are found holding of Ralf de 'Todeni' at Dinedor and in 'Westwood' close by, but there is no proof that this Ilbert was identical with Ilbert Fitz Turold.

Thurstin Fitz Rou ('Rolf'), though only holding two manors in this county, may be mentioned because of his remarkable position on the southern March, where William Fitz Osbern had pushed him forward in what is now Monmouthshire, and also because Brictric, his predecessor in the Herefordshire manors, is also found preceding him so far afield as Hampshire, Berkshire, and Buckinghamshire. I have elsewhere shown that much of his fief passed within a few years to the family of Ballon 102 of Abergavenny.

At the end of the survey, as usual, are a few serjeants and thegns, with the former of whom we may probably class Herman de Dreux also. But of special local interest are the holdings of a Welshman, 'Grifin' son of 'Mariadoc,' and an Englishman, Godric Mappesone, who held 'Hulla.' This place has been said to be Howl 1054 in the extreme south of the county, just to the east of the Wye. But, observing that it is entered under Archenfield, that its peasantry paid a honey-rent, and that its 'fishery' proves it to have touched a stream, I cannot but think that in this holding we have the origin of Goodrich Castle, which would thus derive its name, like Richard's Castle, from its lord. The Monmouth Priory charters prove that the name of Goodrich Castle (castellum Godric) existed as early as 1101 or 1102, and the form 'castellum Godrici' definitely establishes its origin. 104

As to the Welshman, one would like to explain the strange phenomenon of a Welsh prince enjoying the favour of William Fitz Osbern and receiving from him land in Herefordshire. The salient point to be noted is that, in four entries, 'Mariadoc' is styled king (rex), and as we learn from three of these that Earl William gave him lands, we have to look for a Welsh prince who was actually reigning within the period 1066-70. The only one who answers to that description is Meredydd the son of Owain, the 'Mariadoth' of Orderic Vitalis, who speaks of him, not as befriended, but as overthrown by the earl. This Meredydd, son of Owain, had obtained possession of 'Deheubarth' (South Wales) in the course of civil war about a year after the Norman Conquest, and was slain by Caradoc son of Gruffyd and the 'French' on the banks of the Rumney in 1070. He alone, it would seem, can be the 'king' of whom we are in search, though the known facts of his career seem hopelessly at variance with the evidence of Domesday that he and his son enjoyed the favour of the Conqueror and he himself of the earl.

But on the Welsh march the foes of to-day became the allies of to-morrow, 105 as is well seen in Gruffydd ap Llewellin's strange changes of side under Edward the Confessor, who granted lands to him at one time only to resume them at another. 106 Moreover, William Fitz Osbern himself

104 Cal. of Doc. France, 403-8.

<sup>103</sup> Studies in Peerage and Family Hist.
103 Judging from the entry of his holding in Wilts.
1034 Mr. Jas. Wood states that Howl was formerly 'Holwell,' and suggests Hill Court near Ross.

<sup>105</sup> Or, as Mr. Freeman expresses it, the alliances of Welsh and Normans "were commonly short-lived.'
106 Rex Eadwardus dedit regi Grifino totam terram quae jacebat trans aquam quae DE vocatur. Sed postquam ipse Grifin forisfecit ei, abstulit ab eo hanc terram et reddidit episcopo de Cestre et omnibus suis hominibus qui antea ipsam tenebant' (Dom. Bk. i, 263).

is found leasing or subjecting, apparently, to 'King Gruffydd,' certain Welsh vills in what is now South Monmouthshire.<sup>107</sup>

Mr. Freeman, however, inclined to identify the Herefordshire grantee with another Meredydd who flourished a generation later; but this, again, raises chronological difficulties. Nor does one see why a son of that Bleddyn of North Wales who had joined Eadric the Wild in his devastating inroads in Herefordshire should be enfeoffed in that county. But the fact is that we know little of the details of that sporadic warfare which raged along the Welsh March throughout most of the Conqueror's reign, as it had done under Edward the Confessor. Who or what, for instance, was that 'RISET de Wales,' 109 of whom we read, at the head of the Herefordshire Survey: 'reddit regi Willelmo xl libras'? And where was the 'terra Calcebuef' which immediately follows it?

Again, we read of William Fitz Osbern and Walter de Laci attacking and defeating the men of Brecon; 110 although the invasion and conquest of Brecknock, by Bernard de Neufmarché, only took place, it is held, more than twenty years later. And this brings us to one of the puzzles of the Herefordshire portion of the Survey. Bernard's invasion is usually assigned to the reign of William Rufus, but as early as 1088 he gave Glasbury in Brecon (now in Radnor) to St. Peter's of Gloucester, according to the cartulary 110a of that house; and so great was his position by then that he is named with Roger de Laci and Ralph de Mortimer as leading the revolt that year, against William Rufus, in Herefordshire. 1106 If he had attained so great a position within two years of the Survey one would expect to find his name mentioned somewhere in Domesday. And yet we cannot trace him. is this all. For he is also found, at the same time, giving to St. Peter's the church of Cowarne; and this Cowarne, we know, was part of his daughter's inheritance.111 But in Domesday Cowarne was part of the fief of Alvred of Marlborough. Now it is a striking, though obscure circumstance that Orderic Vitalis connects Bernard with two other manors held by Alvred in Domesday. These are Burghill and Brinsop,112 of which Domesday records that Alvred's uncle Osbern had held them when Godwine and Harold were exiled. only a portion of Alvred's fief is found in the possession of his successors at Ewyas Harold, Harold son of Earl Ralf and his heirs, it would seem to have been dismembered on his death or forfeiture shortly after the great Survey.

We have yet to glance at the lands in ecclesiastical possession. The contrast between such a county as Gloucestershire, where these lands form

<sup>107 &#</sup>x27;Hoc misit W[illelmus] comes ad consuetudinem Grifin regis licentia regis W[illelmi]' (Dom. Bk. i, 162).
108 'I conceive that this is Meredydd the son of Bleddyn, who is mentioned in the Brut y Tywysogion,
1100, and his son Gruffyd in 1113. But, if so, Meredydd was not dead at the time of the survey; he
must, therefore, have given some offence and lost his lands, though they were kept by his son.' Norm. Conq.
(ed. 1), iv, 679.

<sup>109</sup> One must not introduce into the text the tempting conjecture that this was Rhys ap Tewdwr, who became King of South Wales in 1079, an event which, Mr. Freeman suggested, might not be unconnected with William's expedition through South Wales not long after, when he is said to have reduced Welsh kings to submission (op. cit. 679). The absence of rex before 'Riset' is against this conjecture.

110 'Rex Guillelmus . . . eum Gualterio de Laceio aliisque probatis pugilibus contra Britones bellis

<sup>110 &#</sup>x27;Rex Guillelmus . . . eum cum Gualterio de Laceio aliisque probatis pugilibus contra Britones bellis inhiantes opposuit. Horum audacia Brachaniannos primitus invasit, et Guallorum reges Risen et Caducan et Mariadoth aliosque plures prostravit.' Ord. Vit.

<sup>110</sup>a Hist. Mon. Glouc. (Rolls Ser.), i, 80. The chronology of this work (Mr. J. G. Wood holds) is not above suspicion.

<sup>110</sup>b Flor. Worc. Chron. (Engl. Hist. Soc.), ii, 24.

111 See my Anct. Chart. (Pipe R. Soc.), p. 8.

112 'Bernardus Goisfredi de Novo Mercato filius ecclesiam de Speinis . . . sanctae Mariae [the Priory of Aufai] dedit, et pro mutuatione ecclesiarum de Burchella et de Bruneshopa xx solidos de censu Neoburiae,' &c, &c. The whole passage is very difficult of explanation.

the subject of four and twenty sections, and Herefordshire, where five suffice, is very great, 113 even allowing for the sub-tenancy of the monks of Conches at Monkland and a few others. But the actual extent of the church lands would have been, as we shall see, far greater but for the recent suppression of the great abbey of Leominster. Even as it was, the church of Hereford was reckoned to possess no fewer than 300 hides in the county, though (we are informed in a special note) its 'men' had omitted to account for thirty-two of these. One is here reminded of the ancient patrimony, also of 300 hides, which was held in the adjoining county by the church of Worcester.<sup>114</sup> The diocese of Hereford then extended north and south into Shropshire and Gloucestershire, and the bishop had lands in both, his great Gloucestershire manor of Prestbury with Sevenhampton being assessed at 30 hides, a figure which implies its ancient possession. In Worcestershire also he held some lands, including the manor of Inkberrow, of which Harold, as in Herefordshire, is charged with despoiling his church. The Conqueror, however, had restored it to the bishop, whose see had actually gained by the Conquest, having only parted with its small Gloucestershire manor of Lydney in exchange for one in Herefordshire.

Nor does it seem to have suffered as much as the church of Worcester and other religious houses from the compulsory enfeoffment of Norman knights to provide for its knight-service. The 'service' due from the see was but fifteen knights, as against fifty or sixty from that of Worcester; 115 and Domesday reveals a marked difference in the surveys of their respective lands. On those of the church of Hereford the knights have but small holdings, and are not mentioned by name, while the number of 'clerks' who held estates under the bishop is notable. 116

Less fortunate was the other old English house which is entered in this county among the ecclesiastical holders of lands. St. Guthlac's of Hereford, with its secular canons, had still several small estates, but three of them were held of it by lay magnates. At least three other estates had passed into the hands of Nigel the physician, a tenant who is entered in the Survey among clerical holders, and who had also secured St. Guthlac's lands in the Worcestershire 'salt' district at Droitwich and Dunclent. In all these cases (except Droitwich) he had effected this by placing himself in the shoes of those who had held the lands from St. Guthlac's T.R.E. The canons also entered a claim to a small estate in the hands of William de Scohies. But the house's chief loss was the valuable manor of Pembridge—worth nearly as much as all the land it had retained—which its canons alleged to have been wrongfully seized by Godwine and Harold, and which Alvred of Marlborough was holding in 1086.

Walter de Laci had divided his benefactions between the two houses of St. Peter which are entered in the survey of our county. One manor he bestowed on St. Peter's of Gloucester, where he himself found burial, and of which his son became abbot, and one, which was also of small account, he gave to his own foundation (which proved the cause of his death) St. Peter of

<sup>113</sup> With the exception of the church of Hereford's estates, the ecclesiastical lands occupy under a column.
114 'Ecclesia Sancte Mariae de Wirecestre habet unum hundret quod vocatur Oswaldeslaw in qua jacent ccc hidae' (Dom. Bk. i, 172b).
115 Feud. Engl. 249.

<sup>116</sup> There would seem to be at least ten entries of such holdings in addition to those of priests and villeins.

Hereford. But the latter received from him also lands on three of his manors, with a villein in Weobley, and another in Shropshire. But the whole endowment, at his death, was very small, and the house was subsequently united with that of St. Guthlac, but on a new site.

There remain two minor foundations, which are just alluded to in Domesday. 'The nuns of Hereford' are mentioned as holding some land, on one of the bishop's manors, 117 and under Shropshire, we read that 'St. Mary of Wigmore' was holding of Ralf de Mortimer half a hide at Walford, near Leintwardine. This was doubtless the collegiate foundation which Ralf is said to have established for three prebendaries at Wigmore, although the Monasticon makes him found it with the consent of Bishop Gerard, i.e. in 1006-1101.118 The evidence of Domesday, therefore, is here of value.

The holding of the abbey of Cormeilles, William Fitz Osbern's foundation, is dismissed in two or three lines, and yet deserves special notice. We read of its 2 hides at Kingston 119 that they (i.e. their occupiers) '(pay their) geld in Gloucestershire, and do their work (there); but those who dwell there come together (conveniunt) to the pleas in this Hundred 120 to do and receive justice (rectum).' The same terms were used in connexion with the case of 'Niware,' also in this hundred. We read of its 21 hides that they 'used to come together and do their work 121 in "Bremesse" Hundred, but that Roger de Pist[r]es 122 diverted them to Gloucestershire in Earl William's time.' In the case of Kingston we ought to be able to identify its 2 hides on the abbey of Cormeilles' land in Gloucestershire, but there is no trace of them or of Kingston under Newent, the abbey's only Gloucestershire manor, which William Fitz Osbern's son Roger had given to it for his father's soul. But under the great royal manor of Westbury (on Severn), seven or eight miles south of Newent, we find, among the losses it had suffered, 'In Noent et Chingestune viii hid.' Here we have the 6 hides of Newent, 123 and the 2 of our Herefordshire Kingston unexpectedly accounted for. Kingston must have been economically part of Newent, 6 miles to the east, and fiscally of Westbury on Severn, of which they were both members. Nor does identification stop here. We read of Westbury's losses: 'has terras tenent modo abbas de Cormeliis et Osbernus,' and it has been said by a high authority 124 of 'Chire' and 'Cliston,' 125 which precede Newent and Kingston, that these 'places cannot be identified.' They are found, however, as 'Clistune' and 'Chure' (Clifton on Teme and Kyre Wyard), some thirty miles to the north of Westbury on Severn, duly held by Osbern (Fitz Richard), and duly assessed at 6 hides! Neither they nor Newent are entered as in any way connected with Westbury, but only as having been held by King Edward. The length of this investigation is justified by the remarkable evidence it affords of the wealth of information that the Domesday Survey can yet be made to yield on the ramifications of tenure before the Conquest.

118 This foundation is not mentioned in the above Diocesan Hist., though it deals with the beginnings of the abbey of Wigmore at some length.

<sup>&</sup>lt;sup>117</sup> In the S.P.C.K.'s *Diocesan Hist.* (p. 17), we read: 'There was in Hereford a house for nuns, in what is now Broad Street, under the patronage of St. Katherine, but little is known concerning it.'

<sup>119</sup> Between Ross and Linton.

<sup>120</sup> i.e. that of 'Bremesse.' 122 A deceased sheriff of Gloucestershire. 121 'Conveniebant et operabantur.' 124 Mr. A. S. Ellis, in Bristol and Glouc. Arch. Trans. iv. 123 So assessed in Domesday.

<sup>125 &#</sup>x27;vi hidae in Chire et in Clistone' (Dom. Bk. i, 163).

And now we come to the vast estates of the historic abbey of Leominster. To say that more than a page of Domesday is devoted to the lands of this dissolved house gives but an imperfect idea of their extent, or of the commanding position that it must have occupied in the county. Alleged to have been founded as far back as 660, and to have been re-established by Earl Leofric of Mercia after destruction by the Danes in 980, the house doubtless fell, as Mr. Freeman conjectured, in consequence of the misconduct of its abbess, in 1045 or 1049, with Earl Swegen, son of Godwine and brother of Harold, although for our knowledge of the fact we are wholly dependent on Domesday, or rather on the inference to be drawn from the Domesday record. As Mr. Freeman justly observed, 'the abbess' is found pensioned off with the possession of Fencote, one of the estates of her house, while the maintenance of the nuns was a charge on the great manor of Leominster itself.<sup>126</sup> The arrangement is thus, as he pointed out, curiously parallel with those on the Dissolution of the Monasteries under Henry VIII. But if the abbess alone was guilty, it seems almost incredible that the saintly Edward should have taken so violent a step as to dissolve the whole sisterhood, 127 and to confiscate to lay uses the hallowed endowments of the church. For that he did so is clear from Domesday, which shows that the Leominster estates passed into his queen's hands, and thence, in due course, into those of King William.

It is extremely difficult to disentangle the constituent portions of the abbey's holding, but certain facts may be said to emerge. One of these is that this holding was still considered to form a corporate whole. Yet even to this rule an exception is afforded by the manors of Marcle and Stanford, which appear separately in Domesday as King William's lands, and as having been held respectively by Earl Harold and Queen Edith, but which, we read under Leominster, used to belong to that manor. Where the corporate character of the abbey's lands is manifest is in the mode of entering the lands, parcel of the manor of Leominster, which Norman lords were holding in 1086. When these or other barons had added to their holdings at the expense of a royal manor, the lands they so obtained are entered under their own fiefs as well as under the royal manor; but in the case of Leominster, which had thus lost 20 out of its 80 hides, their holdings are grouped together under that manor alone, and are not recognized as theirs on their respective fiefs.

'Leominster' stands first on the list of 'gigantic manors' discussed by Professor Maitland. Berkeley and Tewkesbury, to the south, were similar aggregations, and, during his brief but restless career, William Fitz Osbern was doing much, by shifting in kaleidoscopic fashion the manors under his control, to produce fresh combinations. But Leominster has this peculiarity: it was not only farmed and assessed as a whole, it was also assessed at the even sum of 80 hides; and these large round sums are usually characteristic of ancient crown or church estates. The great Gloucestershire manor of the church

<sup>196 &#</sup>x27;Hoc manerium est ad firmam de LX libris praeter victum monialium.'

<sup>197</sup> In the case of the action of Henry II towards Amesbury, rightly compared by Mr. Freeman, 'the misconduct of the Abbess seems to have been worse than that of Eadgifu, and to have extended itself to the sister-hood in general. The house was not dissolved, but the visitors sent away the offending nuns.'

<sup>188</sup> It is one of the strange contradictions of Domesday that it adds, of these two manors, that 'they now render to the king £30, as stated above,' though their renders had been given 'above' as £30 and £5 blanch respectively (Marcle, 'Valet;' Stanford, 'Reddit').

1880 Dom. Bk. and Beyond, 112.

of Worcester, Westbury on Trym, was assessed at 50 hides, and had, we read, for 'members,' Henbury, Redwick, Stoke Bishop, and Yate. Moreover, the fact that Norman knights held lands of the manor enables us to discover that portions of it lay in Austreclive, Compton Greenfield, and Itchington. Of the crown manor of Westbury on Severn, assessed at 30 hides, I have already spoken, and have shown that portions of it lay, remote enough, in Herefordshire and Worcestershire. Such instances as these illustrate the nature of the great manor of Leominster. Like most of its fellows, it had 'members,' sixteen in number, all of which were included in its 80-hide assessment. They were scattered about the north of the county, extending north-west to Leinthall, north to Brimfield, and south to Brockhampton. The manor was reckoned, in King William's time, at only 60 hides as against 80 hides, but of the missing 20 hides, 181 are accounted for as in the hands of Norman barons, whose holdings are grouped together in irregular fashion.

We may further illustrate the nature of this great manor, with its 80hide assessment and sixteen members, by comparing it with two crown manors in the adjoining county of Worcester. Of these, Bromsgrove, with its eighteen 'berewites' (named), was assessed at 30 hides, 180 and Kidderminster, with sixteen (also named) at 20.181 Moreover, just as Marcle and Stanford had 'belonged to' Leominster, it is stated, T.R.E., 132 so there had belonged to Bromsgrove the 5-hide manor of Suckley, 133 which is surveyed under Herefordshire because William Fitz Osbern had placed it 'in firma de Hereford.' Lastly, Bromsgrove, like Leominster, has a separate section, concerning 113 hides in four places (named) which 'belonged and belong to this manor.'134 With regard to this, however, the most valuable comparison is afforded by Westminster Abbey's great manor of Pershore in the same county, which was given to it by King Edward as 200 hides. We read at the end of over three columns, 'Omnes hae supradictae terrae jacuerunt et jacent ad Persore.'

Treated as distinct from Leominster manor are the lands which belonged to Leominster T.R.E.,135 of which the special feature is that they had all been held (evidently under the abbey) by English tenants, whom Norman barons had succeeded. We can sometimes trace the actual succession: thus, Hugh, 'the Ass,' had succeeded 'Letflede' in her tenancy, as in several of the manors on his fief; Roger de Laci had succeeded to Eadwig, William de Scohies to Elmer, and so on. In later days these estates were treated as part of their holders' fiefs, but in Domesday they are still entered apart under the Leominster heading. Their total assessment is given as 32 hides, and it is carefully recorded that they used to pay their geld T.R.E. and render their customary dues to Leominster.

From the barons and ecclesiastical bodies who held of the crown 'in chief' we pass to those who held under them, down, through gradations of

<sup>129</sup> Farlow, one of these members, actually lay in Shropshire, north-west of Cleobury Mortimer, and is surveyed under that county in Domesday, though it subsequently became, till quite recently, part of Hérefordshire.

130 'Inter omnes simul cum Manerio sunt xxx hidae.'

<sup>131 &#</sup>x27;In his Terris simul cum Manerio sunt xx hidae.'

<sup>139 &#</sup>x27;Ad hoc Manerium pertinebant . . . T.R.E.'

<sup>133 &#</sup>x27;Ad hoc Manerium pertinuit Suchelei manerium de v hidis, T.R.E.'

<sup>134</sup> One of the results of comparing Leominster with Bromsgrove is that it strengthens the view (expressed below) that the 'symmetry' of the former's figures was in fact fortuitous.

class, to the so-called free peasantry and the serfs. Here, again, the position of our county, lying on the very verge of Wales, must have exercised a certain influence, although it is difficult to discern its actual extent from the record. The occurrence of some Welshmen as tenants and of some peculiar renders is all that is obvious. But the variety of classes and occupations is considerable and interesting. For these, in default of special research, we are dependent on the useful lists in Ellis's Introduction to Domesday, but apart from two usual, if small, causes of error, 186 Ellis's system exposed him, in the case of this county, to two special and more important ones. On the one hand, he included in his reckoning the group of Worcestershire and Gloucestershire manors entered under Herefordshire; on the other, he left out of account the manors in North Herefordshire entered under Shropshire. His figures, therefore, need to be here received with caution.

Apart from the small 'burgess' class, which will be dealt with below, Domesday shows us in rural life a dominant element represented by the knights (milites), Frenchmen (francigenae), and serjeants (servientes), mainly, if not wholly, of foreign extraction. Next to these we may class the native holders of land, 'Radchenistres,' 'Radmanni,' free men (liberi homines), or simply 'men,' to whom may be added a single 'thegn.' 187 The first two designations, as is well known, are distinctive of Herefordshire and the counties surrounding it,138 and a valuable proof of their identity is afforded in Herefordshire itself. Under the royal manor of Marden we read that the land belonging to it which had been secured by William Fitz Norman was held T.R.E., by three 'Radchenist[res];' and under William's own fief 139 we learn that it consisted of two portions, of which one had been held by Steinulf and the other by two 'Radmans.' In these three holders, therefore, we recognize the three 'Radchenist[res].' 140 We can probably go further and recognize both names as virtually identical with that of 'free man' (liber homo); for under Deerhurst, in Gloucestershire, where their holdings were important, we read of 'Radchen' idest liberi homines' (Dom. Bk. i, 166), and, under Berkeley we meet with 'xix liberi homines Radchenist' habentes xLvIII car. cum suis hominibus' (i, 163). These last figures may serve to remind us that this was a substantial class, as is also shown by the Tewkesbury entries. It is probable, however, that their tenures varied, and that some owed but a money rent, while others performed certain service. We read of one Herefordshire manor with three of them that they 'do service to the lord' as they did before the Conquest.141

Next in order, perhaps, should come the chaplains, clerks, and priests who held land in their personal capacity or as glebe. It is usual to find valuable livings on the great crown manors in Domesday, and these were often in the hands of royal favourites. But as these had been intercepted by William Fitz Osbern, who had given 'church and priest' to his abbey of

One was his misapprehension of the formula 'inter servos et ancillas,' and the other was due to dupli-entries. Godricus quidam tainus.'

<sup>189</sup> Shropshire, Worcestershire, and Gloucestershire. Three or four stray instances occur in Hants and Berks.

139 'Terram W. filii Norman tenuerunt III Radchenist,' nec poterant de hoc Manerio separari.'

<sup>140</sup> So also the 'viii Radchenist[res]' of Leominster, T.R.E., were represented by 'vi Radmans'

<sup>141 &#</sup>x27;Ibi fuerunt et sunt 111 radchen' cum 111 car. et serviunt domino.' In Gloucestershire some are entered as performing the usual agricultural services, but Domesday seems to treat their case as exceptional.

Cormeilles, we know little about them. At Linton the gift included the priest's land; 142 but in the other cases we only read of tithes. On the bishop's fief we have cases of substantial glebe; at Little Hereford the priest had half a hide, at Bromyard the two priests had I hide, at Bosbury the priest had a hide, but at Cradley only a virgate and a half, and at Frome a virgate. His holding of 21 hides at Ledbury seems almost suspiciously large for glebe. On the fiefs in lay hands there is at Fownhope a clear instance of glebe, where half a hide is entered as belonging to the church itself.148 In Archenfield three priests held their churches of the king by the tenure of acting as his envoys into Wales and of singing two masses a week

The line dividing the village priest from the upper class of the peasantry was but slender; it is common enough in Domesday to find him entered with the villeins. Of the village community the lay officers were the gerefa (prepositus) and the 'bydel' (bedellus), but, with the exception of a solitary entry under Worcestershire, it would seem to be only under Herefordshire that we meet with them as such.144 Something, therefore, should be said of the entries concerning them. Ellis reckoned that forty-four prepositi and twenty-one bedelli are mentioned in our county; 145 but I make this to be so great an over-estimate that we must deduct from the former at least thirteen and from the latter twelve. 146 Thus we have only nine bedelli in Herefordshire itself after all, and seven of these were attached to the great manor of Leominster. So remarkable is the form of the entry in which they appear that Professor Maitland was tempted to see in the arrangement it suggests 'a Welsh basis.' 147 It would be rash, however, to accept this suggestion, and comparison with other manors makes it probable that the apparent symmetry is largely due to coincidence. On the only other two Herefordshire manors where a bedellus occurs there is no prepositus, and conversely the prepositus occurs with no bedellus. Of the omission of one and more often of both of these officers the probable explanation is that they were only entered where they held a share in the ploughing arrangements—the mainspring of the village organization. In one instance the prepositus villae is entered as holding the manorial mill (fol. 182).

The point on which I would specially insist is that at Leominster as in Worcestershire the prepositus is invariably assigned precedence of the bedellus. That the former was the superior officer is the view rightly taken by Ellis,

<sup>142 &#</sup>x27;Presbiterum cum sua terra.'

<sup>143 &#</sup>x27;ii presbyteri cum ecclesia habente dimidiam hidam terre.'

<sup>144</sup> The Worcestershire entry is under the crown manor of Bromsgrove, where we find the prepositus et bedellus cum presbitero' grouped among the peasants between the villeins and the bordars (Dom. Bk. i, 172); but under Herefordshire (180b) we have, on four Worcestershire manors, 'et prepositus et bedel' entered regularly after the peasantry. Under Surrey (32b) we have an incidental mention of half a hide held by three men ex officio as 'bedelli' on the royal manor of Kingston, and under Bedfordshire and Cambridge we have king's bedelli holding in their personal capacity, with the heading on fol. 209, 'Prefecti et bedelli regis,' a precedence which is preserved in the entries.

<sup>145</sup> Introd. to Dom. ii, 452, 454.
146 This is partly due to Ellis including the Worcestershire manors with their five prepositi and four bedelli, and partly to his actually adding the eight of each class at Leominster T.R.E. to the seven who occupied their

<sup>147 &#</sup>x27;There were 8 reeves and 16 beadles, and 8 radknights, and 238 villeins, 75 bordiers, and 82 male and female serfs. . . . It is a most interesting manor, for we see strong traces of a neat symmetrical arrangement:—witness the 16 members, 8 reeves, 8 radknights, 16 beadles; very probably it has a Welsh basis.' (Dom. Bk. and Beyond, 112). But the Professor's figures are not quite accurate; the '16' beadles should be '8.'

who treats them as 'bailiffs' and 'under-bailiffs, 148 and by Professor Andrews, 149 with whom I agree in holding that the *gerefa* of Saxon times was less the representative of the villagers than of the lord. 150 The view of Professor Vinogradoff is, at first sight, different, for he writes that

In every single manor we find two persons of authority. The bailiff or beadle was an outsider appointed by the lord, and had to look to the interests of his employer... By his side appears the reeve or *prepositus*, nominated from among the peasants of a particular township, and mostly chosen by them. ... The reeve acts as the representative of the village community as well in regard to the lord as on public occasions. <sup>151</sup>

But these words refer to a later period, when the reeve's office, as is observed by Professor Andrews, had been considerably, if somewhat obscurely, modified. Both officers at the time of Domesday were doubtless of local villein origin, and with them may be classed another important village functionary—the smith. Rather over twenty fabri, apart from those of Hereford itself, are mentioned, and one village carpenter is met with as well as a mason (cementarius), who held no less than three virgates at Eastnor. The swineherd was at times a more substantial personage than might be expected; he is found more than once in Herefordshire holding as much as half a hide. A cowherd as well as a swineherd is mentioned at Stanford.

The three great normal classes into which the peasantry were divided in Domesday were the villeins, bordars, and serfs, as is seen, for instance, in the Leominster entry. But, apart from these, there were much smaller ones, cottars, coliberts, and 'burs' (buri)—less than a score of each—of whom the latter two are now recognized to have been identical, and to have probably occupied a midway position between the serfs and the free.<sup>152</sup>

With the great class of serfs (servi) we may combine for discussion the bovarii and the ancillae, for these were associated closely. The present writer appears to have been the first to discover the connexion between the bovarii and servi and the ploughs on the lord's demesne. The number of the servi or of the bovarii or of both classes jointly is found in a great majority of cases to be exactly double that of these ploughs, and it is clear that each of them had charge of half a plough-team of oxen; the since then there has been some discussion as to the status of the oxmen (bovarii). As a class they are only found in a certain group of counties, Cheshire, Shropshire, Herefordshire, and Worcestershire, and of these, Professor Tait reminds us, Shropshire contains more than half. But his Shropshire, like that of Ellis, is the Domesday county, which includes manors in the north of Herefordshire as we know it, so that if these were included the number of bovarii in our county would be substantially more than the

<sup>148</sup> Introd. to Dom. i, 245-7.

or beadle (The Old Engl. Manor, 142).

150 Ibid. 134.

151 Villeinage in Engl. 318.

<sup>&</sup>lt;sup>152</sup> Introd. to Dom. i, 85-6; Dom. Bk. and Beyond, 36-8.

<sup>153</sup> V.C.H. Worc. i, 274-6; V.C.H. Essex, i, 361-2. Prof. Maitland somewhat strangely failed to detect this connexion, though in the five entries with which he begins his dissertation on the servi we have (in 3urrey) 5 demesne ploughs and 10 serfs, and (in Hants) 6 demesne ploughs and 12 serfs; Dom. Bk. and Beyond, 26. His failure to detect this special association had a considerable bearing on his views as to the substitution of villein for serf labour; ibid. 34-5.

<sup>153</sup>a For further details see preceding note.

<sup>184</sup> Vinogradoff, Growth of the Manor, 334; and Tait in V.C.H. Shrops. i, 302-3.

<sup>155</sup> V.C.H. Shrops. i, 302. In his population tables he reckons the Shropshire bovarii as 397 against the 384 of 'Eyton.' But collation proves that Eyton's figures are really those of Ellis (Introd. to Dom. ii, 480).

104 assigned to it by Ellis, even after deducting eight on the manors he wrongly includes. The rigidity with which the proportion of the bovarii to the demesne ploughs is preserved is very remarkable. Under Shropshire we have under Mortimer's fief bovarii mentioned on nine estates in the Domesday Hundred of Leintwardine. On five there are two bovarii to one demesne plough, on one three to one and a half, on two four to two, on one six to three. As examples of a joint body of oxmen, we have the king's three demesne ploughs at Marden with two bovarii and four serfs, or at Cleeve, where he has four with one bovarius and seven serfs. 167 On the other hand, of his two manors at Kingsland, one has three demesne ploughs with six serfs, and the other five with ten bovarii. 168 At Stanford again he has three with six bovarii. 159 It is needless to multiply instances. One must note, however, that the proportion of the serfs to the demesne ploughs is nothing like so constant as that of the oxmen proper (bovarii). Thus, on the fief of Alvred de Marlborough, bovarii are mentioned on three estates, and serfs alone on four. On the former the proportion is four to two, five to two and a half, six to three; 160 on the latter it is four to two in two instances, but uneven in the other three.

Whether there was a real distinction between bovarii and serfs, and if so, what it was, is a question discussed by Professor Tait. 161 It is complicated by the occurrence in our county of eleven bovarii liberi and of one in Shropshire. As the former are found within the compass of two columns, 162 the liber may be only one of the Domesday scribe's pleonastic vagaries. 163 On one point, however, there need be no hesitation. When Professor Tait endeavours to found a distinction on 'the fact' stated by Professor Vinogradoff' that the ancillae, or women slaves, are never associated with the bovarii, '164 one has only to turn to two entries in his own county of Shropshire 165 or to one in Worcestershire 166 to find the bovarii associated with ancillae in the same way as the servi. But even more destructive to this statement is the evidence found in Herefordshire, where the two are associated in four, 167 if not in

There remain the serfs and the ancillae. As already observed, the proportion of serfs to the ploughs on the lord's demesne, although implying that their chief employment was to act as oxmen to these ploughs, is so frequently above or below the ratio of two to one—to say nothing of the cases in which no serfs are entered—that they must, where there was excess, have been

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156 See note 146, above.
                                                                                    157 Fol. 179b.
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160 It is important to observe that in this manor there were also six serfs.

162 One of them and three serfs to two demesne ploughs; three and one serf to two; six to three; one and one serf to one.

168 Prof. Tait appears to take this view and to think that the liber may perhaps make no distinction.

164 I have not succeeded in finding this statement in the latter's work, but his meaning is at times

165 'In dominio sunt vi car. et xii bovarii et una ancilla.' 'In dominio sunt iiii car. et viii bovarii et ii 166 'Ibi iiii bovarii et una ancilla' (fol. 1776).

ancillae' (fol. 253b).

166 'Ibi iiii bovarii et una ancilla' (fol. 177b).

167 'Ibi iiii bovarii et viii ancillae' (fol. 180). 'In dominio sunt ii car. et iiii bovarii et una ancilla' (fol. 181). 'Ibi iiii bovarii et iii ancillae' (fol. 183). 'Ibi iiii bovarii et una ancilla' (fol. 185).

168 In these additional four entries (of which one relates to Eldersfield and another to Martley in Worcestershire) serfs, ancillae, and bovarii are grouped together (fol. 179b bis, 180, 180b).

<sup>161</sup> V.C.H. Sbrops. i, 302-3. His criticism should, however, be compared with what I have actually said in V.C.H. Worc. i, 274-6, where I held it probable, of the bovarii, 'that some were still of servile status, though others were free and paid chevage.'

used for other purposes; while on the other hand, where they were deficient or absent, the lord must have entrusted his plough-oxen to the hands of some other class. There is some evidence that in the Conquest period the serfs were diminishing in number, while in Essex, as the present writer has shown, there was a marked increase in the bordars, the class intermediate between the villein and the serf. It is only where we are given the figures T.R.E. and T.R.W. that we can make the comparison, and in Herefordshire we have these figures for the notable manor of Leominster. The Domesday figures are these:—

			Villani	Bordarii	Servi et Ancillae
T.R.E.	•		238	75	82
T.R.W.			224	81	25

At the same time the ploughs in demesne had been reduced from 30 to 29, and those of the peasants from 230 to 201. There is nothing here to account for the great decrease of serfs, and as there were no bovarii, the serfs remaining in 1086 were far too few in number for the lord's demesne ploughs. To whom, then, were his oxen entrusted? The same question is suggested at Hayles in Gloucestershire to the south. There were twelve serfs on that manor T.R.E., but none in 1086, because the owner had freed them. And yet there were three ploughs on his demesne. By whom were they worked? Professor Tait guardedly suggests that perhaps bovarii took their place. But there were no bovarii at Hayles and none at Leominster. At the latter place we have only a small increase in bordarii, the same class who are found, we saw, to have increased in Essex.

The proportion of serfs to the recorded population has been worked out by Seebohm for each county, but only from Ellis's figures; and Ellis's figures are here peculiarly in need of emendation.172 But even as they are they show clearly that the serfs, here as elsewhere, were much in excess of the ancillae. But in Shropshire the excess was far greater, and the disproportion in Gloucestershire was relatively enormous. The low percentage of the serfs was accountable for this rather than a high one of ancillae. On the lands of the church of Hereford this local feature was accentuated. Indeed we have actually eight entries, in each of which there is one ancilla, and one in which there are two, but no servi at all. In another there is one of each class; in three there is one servus to two ancillae; and in one there are four to six. The total, it is true, of serfs for the fief exceeds that of the ancillae, but the above facts are very noteworthy, as is the large number of estates on the fief on which there were no serfs. We are much in the dark about the ancillae, though they are recognized as a servile class; one cannot assume that, when entered alone, the ancilla was in fact the dairymaid, for that

170 Dom. Bk. and Beyond, 35; V.C.H. Essex, 1, 359-63.

171 'The statistics given in the Essex Domesday show that in that county there was a large decrease in the number of the servi within twenty years of the Conquest. The "bovarii" of the west may conceivably be the

result of a similar movement there' (V.C.H. Shrops. i, 303).

<sup>169</sup> Prof. Maitland guardedly suggested that the servi may have been entered on different principles in different counties and have existed in some where none are mentioned, but this would hardly affect the above argument.

<sup>172</sup> Ellis reckoned 691 servi and 99 ancillae, but we have first to add all the entries of servi and ancillae entered jointly, as at Leominster, where there were 25, and Cobwell where there were 9, then to deduct, for manors not in the county (fol. 1806), 12 servi, 5 ancillae, and 28 servi and ancillae jointly, and finally to add the figures for the manors now in Herefordshire, which were then entered under Shropshire, as Leintwardine (where there were 5 servi).

functionary (daia) appears on a Worcestershire manor in addition to ancillae. 173

From the non-servile classes of peasants the lord was entitled to that week-work—rusticum 174 opus as it is styled in the Worcestershire Domesday -which was a characteristic of their status. This was so essential a feature of the agricultural system at the time that it needed no special mention. But the very important Leominster entry gives details particularizing the service. The villeins, we read, used to plough 140 acres of the lord's land and sow it for wheat with their own seed. At the time of the Survey, when the manor was diminished, 125 acres were still thus ploughed and sown; but the duty is entered, not as that of the villeins alone, but as that of all the classes named, 'Radmans' included, which tends to obscure the matter. the Crown manor of Marcle the villeins alone are entered as ploughing 80 acres and sowing it for wheat with their own seed, as at Leominster, and they further had to do the same for 71 acres of oats. 175 As I understand these entries, they record a special arrangement by which, instead of having to work a certain number of days for the lord, the villeins were responsible for certain work on a certain number of demesne acres.

There is, however, a mention of week-work under Ewyas Harold, where we read of 12 bordars 'operantes una die ebdomad.,' and a phrase distinctly implying week-work as due, not from them, but from the baronial holders of Leominster and dependent manors. At the very end of their entry we read: 'et ii dies in ebdomada operantur.' Unlikely as it may appear that this phrase applied to the lordly holders of these 32 hides, Domesday, in accord with its regular practice, would regard them as inheriting the obligations of their English predecessors, and if these were 'Radchenistres,' 'Radmans,' or liberi bomines, they might, nevertheless, be liable to week-work. In addition to the evidence cited in the footnote one may refer to that from Staffordshire collected in my paper on the Burton Abbey Surveys, where rent-paying tenants (censarii) of estates, with villeins under them, were personally liable therefor to so many days' work in the harvest-field. From this I deduced, of the censarius, 'that his money payment represented only a commutation of the more oppressive services.' 178

Commutation of service for money and any payment suggestive of it is extremely important to note, as indeed are rents in money or kind.<sup>179</sup>

<sup>&</sup>lt;sup>173</sup> Fol. 180b. <sup>174</sup> In the specialized sense of villeins' work.

<sup>175</sup> The entry accounts for the difference of nine acres.

<sup>176</sup> In Gloucestershire, to the south, 'Hi rachenistres arabant et herciabant ad curiam domini' (fol. 163); and 'De terra hujus manerii tenebant Radchen[istres] idest liberi homines T.R.E. qui tamen omnes ad opus domini arabant et herciabant et falcabant et metebant' (fol. 166). This second passage is followed by a list of the 'Rachenistres' with their holdings and of their Norman successors, including such Herefordshire tenants in chief as William Fitz Baderon, Turstin Fitz Rolf, and Gilbert Fitz Turold. Again, to the east, in Worcestershire, on the great manor of Pershore, we find villeins responsible, as in Herefordshire, for ploughing a certain number of acres and sowing them with their own seed, but the 'Radmans' or liberi homines (for the terms are treated as identical) uniformly described as bound to mow one day a year in the lord's meadows and (normally) to perform 'all such services as they were bid.' Here also the English holders had been replaced by such men as the sheriff Urse, Gilbert Fitz Turold, and Turstin Fitz Rolf.

<sup>178</sup> Engl. Hist. Rev. xx, 275-89.
179 'We might easily underrate the amount of money that was already being paid as the rent of land at the date of the Conquest. In several counties we come across small groups of censarii, censores, gablatores, who pay for their land in money, of cervisarii and mellitarii, who bring beer and honey. Renders in kind in herrings, eels, salmon, are not uncommon, and sometimes they are "appreciated," valued in terms of money' (Dom. Bk. and Beyond, 57).

Turning again to Leominster we find the villeins T.R.E. making a customary payment of no less than £11 4s. 4d., while the 'Radchenistres' used to contribute 13s. 4d. and four sestiers of honey. In 1086 the customary payment, apparently from all classes combined, had fallen to £7 14s. 8\frac{1}{2}d., but there were some further payments by way of commutation. Eighteen shillings were paid for fish (pro piscibus); 8s. towards salt (ad sal); and 65s. in respect of honey (de melle). 'Fish silver' and 'a payment for salt' are occasionally met with in manorial surveys, 180 but their origin is not wholly clear. I have shown that at Burton (Staffs.) the holder of two bovates had to go and fetch salt (pro sale) once a year and to make another journey for fish (pro piscibus), or commute each journey for a payment of 2d. to the abbot. 181 The conjunction of the payments appears to me to suggest their similar origin at Leominster. In Cambridgeshire, however, Domesday records a payment de presentatione piscium, and on the Ramsey Abbey manors the fish silver or 'haringsilver' seems to have been paid ad pisces emendos. 182 As to the honey, it will have been observed that the 'Radchenistres' T.R.E. made their render partly in money, partly in honey, and so did the Radmans of Westminster Abbey at Pershore, who 'used to render T.R.E. £82 and 50 sestiers of honey,' and also the 'Radchenistres' at Deerhurst, which was farmed T.R.E. for £41 and 8 sestiers of honey. Honey renders, though characteristic of Welsh tenants, were by no means restricted to them.

The customary payment in money by the Leominster villeins may be compared with those on the royal manors at Kingsland. 182a On the second of these the villeins made a customary payment of 13s. 4d., while the 'coliberts' rendered three sestiers of wheat and of barley, and two and half (sic) sheep with their lambs and  $2\frac{1}{2}d$ . On the other manor, the villeins and the 'coliberts' are named among the sources of a money payment. We know so little of the 'coliberts' that any light on their renders is welcome; in a Worcestershire manor they are found giving both money and work. Good instances of payments by villeins are found on the church of Hereford's three manors, Walford, Ross, and Upton, on the first of which the villeins pay 20s. for the waste land, 184 on the second 18s. as rent (de censu), and on the third 20s. as a customary due (per consuetudinem). Of actual money rents there are examples at Leintwardine, where two tenants (homines) render 4s. de locatione terrae, 185 and at Marden, where 9s. were received in rent. 186 Baysham 5s. was rendered de consuetudine by 14 homines, who it would be rash to assume were villeins.

At Eardisley a Welshman rendered 3s. a year; to the king's manor of Cleeve cum Wilton Welshmen rendered 10½ sestiers of honey and 6s. 5d.; in the same Archenfield region a Welshman paid to Roger de Laci 5s. and a sestier of honey, while the lord of Kilpeck's tenants paid him 15 sestiers of honey and 10s.; there also, on a manor of Gilbert Fitz Turold's, four 'freemen' paid him a customary due (de consuetudine) of four sestiers of honey and

Vinogradoff, Villeinage in Engl. 291.
 Neilson, Manors of Ramsey Abbey, 55.

<sup>189</sup>a i.e. the two manors of 'Lene,' which are probably now represented by Kingsland and Eardisland.
183 'Ibi vi coliberti reddunt per annum xi sol. et ii den. et arant et seminant de proprio semine xii acras.'
Aichintune (fol. 174b).

<sup>184</sup> At Fownhope, higher up the river, the lord had 125. 4d. 'de wastis terris.'
185 Fol. 260.
186 De mercede terre Manerii hujus exeunt ix solidi.'

16d., and a Welshman paid Ralf de Saucy a sestier of honey. Nor do these cases exhaust the list. Honey was combined with 'blooms' of iron in a render from the villeins of Alton near Ross, 187 and iron with salmon as a render from 'Turlestane,' 188 which was doubtless on the River Wye. At the head of the Golden Valley eight Welshmen make the characteristic render of a hawk and two hounds (fol. 187). From his manor of Kingstone the sovereign was entitled to a hawk.

On the Laci fief we have an interesting example of settlers (hospites) paying rent. In one entry seven hospites with a plough pay 5s.; at Leinthall 100d. were received 'from certain settlers 190 so long as they wished' (to remain), and in another entry 191 tenants render 10s. 8d. pro suis hospitiis. Lastly attention may be drawn to renders in money which appear to be rents payable to the head manor of Leominster. Of these thirteen payments twelve are based on a unit of 20d., 192 and the remaining one is 3s. There is also, at the end of the Leominster entries, a list of the renders (not valebat) T.R.E. of the attached manors. Here again the unit of 20d. is prominent; in nine cases the payments are based on it; 193 in the five others they are not. 194 Possibly this unit is recognizable in the customary render of 5s. (60d.) from Baysham.

The miscellaneous sources of rural revenue include some features of interest, though they were in the main of the usual character, the mill with its millpond and privilege of multure, the river with its fishery and water-meadows, and the woodland with its many uses. Of these the mills, which varied much as elsewhere in value, made their contribution often enough in grain and in eels (from the mill-pond) as well as in money. At Marcle the king had a mill of which the proceeds only sufficed to support the miller, and one at 'Estune' renders nothing. But at Marden and at Burghill the mill rendered 20s. and 25 'stiches' of eels, and at Kingsland 26s. 8d. and 500 eels were contributed by the two mills. A Marcle mill rendered grain (annonam), and one near Orleton four bushels of grain and 15 'stiches' of eels. A good instance of the division of a manor involving the division of the profits from its mills is afforded by Bullingham, which was in three portions before and after the Conquest. Each of them was assessed at two hides and valued at 50s., and each of them had a third share in two mills,195 which was reckoned at 14s. 8d. This would give the total profit from the mills as 44s., a suggestive sum. For the ora of 16d. was a unit specially prominent in the renders from mills. As examples of this we may take the entries of the bishop's lands on fol. 182, where we have two mills rendering 16d. each, four which render 32d., one of 4s. (3 orae) and one of 6s. 8d. (5 orae). There are other occurrences of this unit, 196 but it is only right to add that 55. is also a unit in the figures given for mills.

<sup>187 &#</sup>x27;Reddunt xx blomas ferri et viii sextaria mellis.'
189 'In some counties on the Welsh march there are groups of hospites, who in fact or theory are colonists whom the lord has invited on to his land' (Dom. Bk. and Beyond, 60). Prof. Maitland's instances are taken from Shropshire, where they pay a money rent.

190 'De quibusdam hominibus ibi hospitatis.'
191 They all occur together on fol. 1846.

<sup>&</sup>lt;sup>192</sup> They are multiples of this unit as follows: 3, 4, 9, 3, 3, 4, 3, 2, 2, 2, 1, 1.

<sup>193</sup> The multiples are 3, 4, 2, 2, 8, 1, 3, 3, 3.
194 These are 50d. 142d. 142d. 104d. 104d. 10d.

<sup>195</sup> In one of the entries they are loosely entered as if one mill.
196 Mills of 8s. (fol. 181b), of 16s. (fol. 184), and of 16d. (fol. 185).

It has been shown, however, that the unit of 16d. was still in use,197 and I therefore hold that the 18 orae denariorum to which the wife of Earl Morcar was entitled from the reeve of Kingsland were of 16d. each. The wife of his brother, Earl Eadwine, was entitled to a similar gift in Shropshire, and the two entries ought to be compared:

#### HEREFORDSHIRE

SHROPSHIRE

Prepositus hujus manerii consuetudinem habebat T.R.E. ut veniente domina sua in manerium presentaret ei xviii oras denariorum ut esset ipsa laeta animo. Et dapifer et alii ministri habebant de eo x solidos (fol. 179b).

Per consuetudinem veniente comitissa in manerium afferebantur ei xviii orae denariorum (fol. 253b).

So also the 'v oras' which the Leominster lands of Osbern Fitz Richard rendered (fol. 180b) were probably 6s. 8d.

Entries of fisheries or of water-meadows connote a stream of some kind, and often afford a clue to the situation of a manor. But the produce of Domesday 'fisheries' was eels. At Fownhope were three fisheries producing 300 eels, and on two of Leominster's dependent manors were others which produced 500 and 600 eels respectively. On the royal manors of Marden and Cleeve were 'fisheries' producing nothing,198 but on the other hand Roger de Laci is entered as having a fishery on the Wye worth £6. At Dinedor there is a noteworthy statement that no one could fish without leave. 199 The water-meadows were of value as producing hay for the oxen,200 and sometimes money was received for the hay in excess of their requirements, as at Monkland 201 and Stretford.202

The Herefordshire woodlands are of more interest than either the Apart from their usual value for fencing, repairs, fisheries or the water-mills. and fuel, and, above all, for pannage, they were closely associated in this county with hunting for profit, with the spread or decay of cultivation, and, strange as it may seem, with the salt industry of Worcestershire. description varies. Sometimes the wood is vaguely entered as small 203 or large; 204 sometimes its value is given in money, 205 or described as nil, 206 which must mean no value in cash; often an attempt is made to indicate its size by measurements, which must have been very loose. Careful study suggests that the king had added to his forest, at least to the south of Hereford. Bullingham entry asserts the fact,207 and at the adjoining Dinedor the wood was in the king's demesne. 208 Lower down the Wye valley, at Ross 209 and Cleeve, 210

197 See my paper on 'The Domesday Ora,' in Engl. Hist. Rev. April, 1908.

199 'In aqua vero nemo piscatur sine licentia.' 201 'De prato v sol. preter pastum boum' (fol. 183).

203 ' Parvula silva'; ' paululum silvae.'

<sup>204</sup> 'Silva est ibi magna, sed quantitas non fuit dicta' (fol. 187).

207 'Silva est ibi sed posita in foresta regis' (fol. 186). And so in another Bullingham entry: 'Silva est in foresta regis' (fol. 184). This was probably the forest of Acornbury.

resta regis (101. 104). This was product, the second regis (101. 104). 210 'De hoc manerio est in foresta regis W. tantum terrae quae T.R.E. reddebat vi sextar' mellis et vi

oves cum agnis.' This clearly indicates extension.

<sup>198 &#</sup>x27;Sine censu' (fol. 1796); 'nil reddens' (fol. 1796). The former term suggests that the eels represent

<sup>200 &#</sup>x27;Pratum est bobus tant[um]' (Bodenham). 202 ' Pratum reddit iii sol.' (fol. 186).

<sup>205</sup> At Marden the wood rendered 20s., at Leominster (T.R.E.) 24s. besides pannage, at Burghill 4s., at Norton 25., at Kingsland 35. 4d. on one manor, while on the other 85. was received from the wood and the

we find the ban of the king's forest. On the opposite side of Archenfield it had similarly encroached on the bishop's manors of Didley and Stane,<sup>211</sup> which were dangerously near the royal forest of Treville. Of such importance was the king's hunting in this upland wood that his villeins at Kingstone were said to owe no service but that of carrying to Hereford the proceeds of the chase.<sup>212</sup> The borough itself had to supply beaters when the king went hunting in the wood.<sup>213</sup>

The Norman barons hunted like their lord, to replenish their kitchens, doubtless, as well as for pleasure. In the ravaged manors on the Welsh March lands once under the plough were already overgrown with wood and produced nothing but game. This was the case with a group of manors 'in Marcha de Walis,' where there had once been work for six-and-thirty ploughs.214 Of Harewood at the head of the Dore valley we read that it had similarly lapsed.<sup>216</sup> Its lord, Gilbert Fitz Turold, had 'a great wood for hunting in 'at 'Walelege,' where stood his fortified house on a 'wasted manor.' At 'Bernoldune all was waste but the baiae in a great wood, where its lord captured what he could (fol. 187). These hays (baiae), in which wild animals were caught, are frequently mentioned; at Lingen there were three for capturing roedeer (capreolis); 216 at 'Ruiscop,' one in a great wood; one, we have seen, at 'Bernoldune,' and several others. From other sources we learn that the lords of Kilpeck held Little Taynton, Gloucestershire, by the service of 'keeping the hay of Hereford.' 217 Pannage for fattening the herds of swine on the mast in the woods was always a source of profit. At Leominster the villein who had ten pigs gave one de pasnagio; at Pembridge there was woodland enough for 160 swine in a good season (si fructificasset).

The connexion between the woodlands and the salt industry at Droitwich is illustrated by the entry on Fladbury (Worcestershire), where the bishop of Worcester is stated to receive all the produce of the wood in (1) hunting, (2) honey, 218 and (3) fuel for the Droitwich salt-pans ('lignis ad salinas de Wich'). In Herefordshire the 5s. received for the wood at Marcle were given for 60 mitts of salt at Droitwich, 219 and 5s. were similarly apportioned from the 22s. received for the woodland at Leominster, and produced 30 mitts. 220 The 25 mitts of salt to which Cleeve-cum-Wilton was entitled T.R.E. may therefore possibly have been lost when King William took into his forest a portion of that manor. The system is explained in the entry on Bromsgrove, the first royal manor in Worcestershire, which, although possessing salt-pans, &c., of its own at Droitwich, had to send thither 300 cart-loads of wood (for the furnaces) in order to obtain thence 300 mitts of salt. One may suggest that on distant manors it was found better in practice

<sup>211</sup> 'De his ix hidis . . . altera pars in defensione regis.' And at Madley, a bishop's manor, a little farther north, the wood was 'in defensu regis.'

<sup>212</sup> 'Ibi silva nomine Triveline nullam reddens consuetudinem nisi venationem. Villani T.R.E. ibi manentes portabant venationem ad Hereford, nec aliud servitium faciebant.' The Empress Maud granted to Miles, Earl of Hereford, in 1141, 'haias Hereford et forestam de Trivela.'

ouando rex venatui instabat de unaquaque domo per consuetudinem ibat unus homo ad stabilitionem in silva.' In Shropshire thirty-six men were similarly supplied by Shrewsbury.

<sup>214</sup> 'In his wastis terris excreverunt silvae in quibus isdem Osbernus venationem exercet et inde habet quod capere potest; nil aliud' (fol. 1866).

215 4 Haec terra in silvam est tota redacta; wasta fuit et nil reddit.'

<sup>&</sup>lt;sup>216</sup> Fol. 260. <sup>217</sup> Cf. n. 82, above. <sup>218</sup> From the wild bees.

<sup>&</sup>lt;sup>219</sup> 'Silva reddens v sol. qui dantur ad Wich pro lx mittis salis.'
<sup>220</sup> 'Ex his dantur v sol. ad ligna emenda in Wich et habentur xxx mittae salis inde.'

to save the cost of cartage, and possibly tolls,221 by obtaining money locally for the wood, sending it to Droitwich, and buying wood with it there.<sup>222</sup> are several other entries in our county referring to salt from Droitwich; 228the king's manor of Marden had nine seams (summas) of salt from the saltworks there or 9d. (in lieu thereof); 224 on the bishop's lands are four manors of which one owned a salt-pan at Droitwich, another a salt-pan there 'rendering 16 mitts,' and the others severally shares of salt-pans; 'Walintone' also was entitled to '16 mitts of salt at Droitwich for 30 pence.'

In spite of all these uses, the woodland, which in some parts had extended, was in others being already stubbed up for cultivation. In Herefordshire alone, apparently, are essarts mentioned in Domesday, and at Marcle they are actually defined as lands reclaimed from wood.226 Fifty-eight acres had been thus reclaimed there, while at Leominster the essarts were bringing in 17s. 4d. 226 At Weobley a whole plough-land had been cleared, 227 and at Fernhill the 'essarz' brought in 4s. 6d.

So much for the rural districts, compared with which, at the time of the Survey, the towns were of small importance. We are helped to pass to the urban from the agricultural element on the one hand by the rural work performed by the burgesses of Hereford, on the other by a few entries of burgesses who belonged to manors.

In the lengthy and most important section relating to the 'city' of Hereford we read that every whole messuage within the city wall owed, with other dues, three days' reaping in August at Marden, 228 and one day's haymaking 229 where the sheriff would. With this we may compare the case of the thirteen burgesses of Droitwich who owed reaping service to a Worcestershire manor of Osbern Fitz Richard in August and March.<sup>230</sup>

It will be necessary to examine closely the cases of Hereford burgesses connected with country manors as having in my opinion a very important bearing on what is known as 'the garrison theory' of the borough. That theory was first applied to English boroughs by Professor Maitland,231 and though it does not seem to have gained much acceptance, Mr. Ballard has strenuously upheld it.282 His conclusions are that

the evidence of Domesday Book supports Professor Maitland's 'garrison theory' with a slight modification, and proves that many of the rural magnates performed their duty of fortifying the boroughs by keeping houses in those boroughs and burgesses in those houses, and that too, not only in the newer Midland boroughs, such as Oxford, Buckingham, Tamworth, Warwick, and Stafford, but in those also that were inhabited in Roman times. 233

I must still maintain that the burgesses mentioned in connection with the villages resided in the boroughs . . . and that their residence in the boroughs was owing to their liability for the repair of the walls.234

<sup>&</sup>lt;sup>201</sup> For these tolls on the salt-carts see the entries of customs at the Cheshire salt-works in Domesday.

This would fit in with the suggestion (p. 292 above) that the payment by the Leominster villeins 'ad

sal' was a commutation of service, if they had previously to cart the wood.

223 Such entries were misunderstood by Ellis (Introd. to Dom.), who imagined them to relate to salt-works

224 This seems to give us the value of the horse-load.

<sup>225 &#</sup>x27;Essarz' is written over 'terre projecte de silva.' <sup>226</sup> 'De exsartis silvae exeunt xvii sol. et iiii den.'

Terra ad i carucam de essarz.' It is not quite clear whether the words 'redd xi sol. et ix den.' which follow refer to the 'Essarz' alone.

It is not clear why this was the royal manor selected.

228 It is not clear why this was the royal manor selected.

229 Fol. 176h

230 Fol. 176h

231 Dom. Bk. and Beyond, 179-92, especially 189-91.

<sup>&</sup>lt;sup>233</sup> The Dom. Boroughs (1904), 11-35. The Dom. Inquest (1906), 176-8.
<sup>234</sup> The Dom. Boroughs, 35.
<sup>234</sup> The Dom. Inquest, 177-8.

Now, if there was one town more than another that needed a garrison and a wall, that town was Hereford. A standing bulwark against the Welsh, after as before the Conquest, fortified, stormed, and fortified anew, with a wall that is specially mentioned in the Domesday description of the city, it is here pre-eminently that we should expect to find the garrison system in operation. And here the champions of that system emphatically fail to find it. They leave Hereford severely alone. All that Professor Maitland could do was incidentally to observe 'these Hereford burgesses were fighting men,'236 a conclusion that in no way connects them with 'rural properties in the country,' 237 as required by the 'garrison theory.'

When we come to inquire for ourselves the extent of this connexion in Herefordshire, we find that the instances are three in number, just enough to establish the absence of any general system of the kind. Four burgesses at Hereford were connected with the king's manor of Marcle, to which they rendered eighteen plough-shoes; five with the manor of Burghill, to which they rendered 52d.; and one with Henry de Ferrers' manor of Frome, to which he contributed 12d.<sup>238</sup> Apart from any locality Roger de Laci had burgesses in the city who paid him 20s. a year, and the bishop had there his own fee, on which the messuages had diminished from ninety-eight to sixty. It may, I think, be fairly said that the evidence of this county is a reductio ad absurdum of the theory that the lords of manors had to keep burgesses in the county town to discharge the duty of repairing the walls incumbent on their 'rural properties.'

Mr. Ballard further makes these assertions:--

There were several Herefordshire properties which contributed to Worcester. 239

I

It is invariably the case that, except where a borough lies on the borders of two counties, the villages contributing to it lie in the county in which it lies.<sup>240</sup>

Not only are these assertions mutually contradictory: they are both, strangely enough, erroneous. There was one, but only one,<sup>241</sup> manor in Herefordshire which 'contributed' (the word is unfortunate) to Worcester; this was Coddington, in the east of the county, to which belonged four messuages in that city.

The Domesday description of Hereford, as is so often the case, is largely of the nature of a custumal, and the customs recorded are those which existed before the Conquest, and which, so far as the natives were concerned, were still to remain in force. The burgesses also of Edward's day were enumerated with more precision than those at the time of the Survey. 'Within and without' the wall there dwelt, before the Conquest, 103 men enjoying (and of course subject to) the same customary tenure. The custumal at once enumerates and limits the dues they owed their lord the king. It is also

These instances are carefully collected by Ellis (Introd. to Dom. ii, 455). Mr. Ballard's figures seem even smaller (Dom. Boroughs, 39).

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<sup>&</sup>lt;sup>235</sup> Hereford is absent from Mr. Ballard's lists in Dom. Boroughs, 14-16, 35-6.

<sup>&</sup>lt;sup>236</sup> Dom. Bk. and Beyond, 199.

<sup>237</sup> The Dom. Boroughs, 31. Mr. Ballard claims that this connexion existed 'in all the county boroughs,' and was 'a universal rule,' and that 'on the contributed houses in these boroughs fell the liability for repair of the borough walls' (p. 34).

<sup>239</sup> The Dom. Boroughs, 18.

<sup>&</sup>lt;sup>241</sup> Mr. Ballard must have here included in error the Worcestershire manors entered under Herefordshire on 180b.

at pains to explain that the only difference between those without and those within the wall was that the former paid  $7\frac{1}{2}d$ . and the latter  $3\frac{1}{2}d$ . as the money rent of their houses; all other customs they had in common. The Survey further informs us that Earl Harold had in the city twenty-seven burgesses with the same customs, and therefore apparently owing the same dues to the king, in which case it is not easy to see where Harold had his profit unless in their fines and forfeitures. But the rack rentals of the houses may have exceeded their quit-rents. The description gives us no hint that there were more than 130 burgesses T.R.E., but when we come to the bishop's fief we read of his ninety-eight messuages in the city, from which he used to receive 94s. Probably these were in his own fee and the custumal did not apply to them.

With this important custumal one cannot deal seriatim, but certain points may be selected. There is sufficient resemblance between some of its provisions and those recorded at Shrewsbury to make comparison instructive. In both is the ever-present reminder of Welsh warfare:

#### HEREFORD

Si vicecomes iret in Wales cum exercitu, ibant hi homines cum eo. Quod siquis ire jussus non iret emendabat regi xl solidos.<sup>243</sup>

#### SHREWSBURY

Cum in Walis pergere vellet vicecomes, qui ab eo edictus non pergebat xl sol. de forisfactura dabat.<sup>244</sup>

So, too, there is a parallel in the three forfeitures:

Rex vero habebat in suo dominio tres forisfacturas, hoc est pacem suam infractam et heinfaram et forestellum. Quicunque horum unum fecisset emendabat c solidos regi cujuscunque homo fuisset. Siquis pacem regis manu propria datam scienter infringebat, utlag' fiebat. Qui vero pacem regis a vicecomite datam infringebat c. sol. emendabat et tantundem dabat qui Forestel, vel Heinfare faciebat. Has iii forisfacturas habebat in dominio Rex E. in omni Anglia extra firmas.

At Shrewsbury the king was entitled to a 'relief' of 10s. on the death of every burgess in his demesne; at Hereford he had this sum on the death of a burgess who had no horse (equum), or his land with the houses on it instead; if the burgess 'served on horseback' (serviens cum caballo), the king had his horse and arms—the recognized 'heriot.' All Domesday distinctions between classes of burgesses are important. At Hereford we find at least two; for determination of the dues at death a sharp line, we have seen, was drawn between the man with the horse and arms and the man without, while the line was drawn, for another purpose, between the man who had an entire messuage and the man who had not, the former being liable to beater service when the king went hunting, and the latter to guard service when the king lay in the town. Both services are mentioned at Shrewsbury, but the former was performed by thirty-six footmen sent by the sheriff, and the latter by twelve 246 of the better class (de melioribus civitatis).

The 'horse and arms' burgesses of Shrewsbury acted as guard to the king when he went a hunting,<sup>247</sup> a precaution suggestive of Welsh raiders. Those of Hereford had no such duty; but, as I read the record, they also

<sup>&</sup>lt;sup>249</sup> These seem only to have accrued to the king from his 'demesne' ('in suo dominio').

Fol. 179. It will be remembered that in Archenfield the fine for this offence was only 2s. or an ox.

245 See V.C.H. Berks. i, 316.

<sup>246</sup> Adding to these figures the twenty-four 'caballi' whom the sheriff had to send to Leintwardine, we seem to have traces of a duodecimal system.

247 'Custodiebant eum cum armis.'

had an escort to provide. We are told that 'Qui equum habebat ter in anno pergebat cum vicecomite ad placita et ad hundrez ad Urmelauia.' Mr. Ballard assumes that this refers to the hundred court for Hereford itself, and is proof that it was not held within the borough.248 But, why should only the horse-owning burgess attend the court? To identify it we must first inquire where was 'Urmelauia.'249 The answer is simple: it was the place of assembly for the Domesday hundred of 'Wermelau,' now Wormelow, and this meeting-place was 'Wormelow tump' (a mere pleonasm), some six miles south of Hereford, where the road to Ross branches off from that to Monmouth. To reach it, the cavalcade must have passed through the Domesday hundred of Dinedor (Dunre), and entered that of Wormelow. Obviously, the court to which they rode could not be that for Hereford itself, and my solution is that it was that which the Welsh of Archenfield attended, and that the Hereford horsemen formed an escort for the sheriff on his somewhat hazardous visit.

'Thrice in the year' they had to go. Have we not then in this entry an allusion to the 'sheriff's torn' of later days, the only reference, apparently, to that institution in Domesday, and perhaps, indeed, the earliest mention of its existence? 260

The only special industries alluded to at Hereford are brewing and iron-The customary payment of 10d. by every man whose wife brewed within or without the city reminds us that this industry was so largely in the hands of women as to originate the name of 'Brewster.' As to the six smiths, who are the subject of a special entry, we read that each of them used to pay 1d. for his forge and make 120 horse-shoes from the king's iron, and that he received, by custom, 3d. There are only two renders of iron recorded in the county, it being more frequently mentioned under Gloucestershire. It was probably worked in the south of the county, where traces of iron-working, said to be Roman, are found at Peterstow, and if 'Alwintune' was Alton 'Court,' 250a south-east of Ross, its render of iron would thus be accounted for. Shortly before 1700 Ross was described by Brome as noted for the great Vulcanian tribe of Blacksmiths which there inhabit,"251 and it is styled, somewhat later, in Defoe's Tour, 'a great manufacture of iron-ware.' 252

Space does not permit of discussing every point in the Hereford entry, but the now famous 'laws of Breteuil' must not be passed over. Here, as in several other towns, 'French' burgesses had settled after the Norman Conquest, and Domesday says of them, 'Francigenae burgenses habent quietas per xii denarios omnes forisfacturas suas preter tres supradictas.' As I have

<sup>&</sup>lt;sup>248</sup> The Dom. Boroughs, 53.
<sup>249</sup> Mr. Ballard oddly reads 'Urmer-lavia' (ibid.). There is no second 'r' in the Domesday text.
<sup>250</sup> I do not ignore that the sheriff's torn, when it emerges in records, was held twice, not thrice a year, but in what is considered to be the earliest reference to it, the Leges Henrici, sec. 8—assigned to 1114-18 the words are:—'Speciali tamen plenitudine, si opus est, bis in anno conveniant in hundretum,' &c. [ed. Prof. Liebermann, 554), implying that the number was then hardly fixed. The burgemot was, according to the Leges, to be held twice, and the hundred court twelve times, a year; but this latter rule did not endure, and the borough court, by the laws of Edgar, was to be held thrice a year, and appears to have been so held till Henry I altered the rule to twice a year. The suggested change in the sheriff's torn would

<sup>&</sup>lt;sup>250a</sup> Mrs. J. G. Wood rejects this identification. <sup>251</sup> Brome, Travels (ed. 2), 95.

<sup>&</sup>lt;sup>252</sup> William Fitz Baderon's son Baderon gave (iron) forges at Monmouth to Monmouth Priory, and was lord of Longhope (five or six miles south-east of Ross), where Baskerville describes under Chas. II the method of iron-working with charcoal, which had probably altered little since the time of Domesday (Hist. MSS. Com. Rep. xiii, App. pt. ii, 293-4).

elsewhere explained,<sup>258</sup> the Rhuddlan entry in Domesday proves that this privilege existed 'in Hereford et in Bretuill,' and was granted to both by William Fitz Osbern,<sup>254</sup> whose act bore fruit far and wide in the customs

of English boroughs.255

The king, at the time of the Survey, held the city 'in demesne' and received from it the large sum of £60 a year, paid by tale in assayed pennies. Under his predecessor the reeve (prepositus) had rendered but £12 to the king and £6—the earl's 'third penny' of the revenue—to Earl Harold. Towards raising this sum he received the whole of the king's dues set forth in the description of the city, save the three reserved pleas of the crown (i.e. the forfeitures accruing from them). Hereford is an instance of a town which had its 'render' sharply raised by the Conqueror; Shrewsbury had rendered as much as £30 before the Conquest, and yet was only called upon for £40 at the time of the Survey, but Domesday shows that it had lost in houses and in inhabitants; to the east, Worcester was only called on for £23 5s., though it had yielded £18, if not more, before the Conquest. The quit-rent of a house at Hereford (within the walls) was  $7\frac{1}{2}d$ ., and at Shrewsbury about the same, 256 but at Hereford every burgess paid 4d. in addition for horse hire (ad locandos caballos), besides having work to perform at Marden.

Outside Hereford the only burghal element is found, somewhat unexpectedly, in connexion with the castles of Norman lords. At Clifford Castle there was a borough (burgus) with sixteen 'burgesses'; at Wigmore Castle there was a borough (burgus) which already rendered to its lord £7 a year; at Richard's Castle Osbern Fitz Richard had twenty-three homines in castello; and at Ewyas Harold Henry de Ferrers had two messuages in castello. These are interesting examples of that type of urban community which gathered about a feudal castle in a county so highly feudalized and so exposed to devastation as Herefordshire then was.

Local finance and administration were at this time closely connected. Hereford is believed to be almost, if not quite, alone among the county towns dealt with in Domesday in being so distinctly entered as farmed by its reeve. The entry which informs us of this is immediately followed by the statement that 'Inter civitatem et xviii maneria qui in Hereford reddunt firmas suas computantur cccxxxv lib. et xviii sol. exceptis placitis de hund' et de comitatu.' Noting, as we pass, that computantur is a technical Exchequer term, we are struck by the largeness of the total. This is accounted for by the fact that half of these eighteen manors were outside the county and had been financially annexed to it by the act of William Fitz Osbern. Most of them lay in Worcestershire, where the county finance presents the closest parallel. For, there also, we have the king's revenue entered as derived from three sources: (1) the county town, (2) his demesne manors, (3) the pleas in (the courts of) the county and the hundreds. But the actual figures are there given for all three sources, while in Herefordshire we have none for the

<sup>256</sup> As 252 burgesses (all with houses) rendered £7 16s. 8d., the average would be as nearly as possible 7½d. Dom. Bk. (Rec. Com.), i, 252.

 <sup>253</sup> Studies in Peerage and Family Hist. 183.
 254 Cf. note 50, above.
 255 See the late Miss Bateson's brilliant monograph on 'The Laws of Breteuil,' Engl. Hist. Rev. xv.

<sup>&</sup>lt;sup>257</sup> These are the manors surveyed on fol. 180b. They must have contributed nearly £100 to the total, but the payments of the various manors are so differently reckoned that the details of the total sum would require elaborate discussion.

profits of the pleas. It should here be observed that the Worcestershire sheriff complained that he drew nothing from seven of the twelve hundreds, which diminished his revenue. In Herefordshire we meet with no such complaint, but we find that in King Edward's time the 'third penny' of five hundreds had been annexed (as was a common arrangement) to two manors of Earl Harold's, which were held by Alvred of Marlborough in 1086, when they no longer enjoyed this privilege. The old-world due of the 'night's ferm' is only mentioned under Linton, which had rendered a quarter of that amount under the Confessor, a render exchanged since for one in money. Of Lugwardine it is said, somewhat strangely, that its value T.R.E. cannot be given, as it 'was not then at ferm.'

Although several sheriffs are mentioned in the Survey of the county, it is difficult to identify the one who held office when that Survey was made. He was, no doubt, that 'Ilbertus vicecomes' who was then farming Archenfield, but his surname remains in doubt.<sup>258</sup>

Moreover, there was at the time of the Survey another sheriff in Herefordshire: this was Gilbert 'vicecomes,' who appears as 'farming' Clifford and all that was there under Ralf 'de Todeni.' There is nothing to show who he was,259 but he cannot well have been the sheriff of the county at the time. Of past sheriffs the most important was Ralf de Bernai, a follower of William Fitz Osbern, who is mentioned four times. He had held land belonging to Ewyas (Harold) Castle, which was granted by the Conqueror to Alvred of Marlborough, and is accused as having abstracted one hide from Monnington Stradel.260 But his shrievalty specially appears in his dealings with the lands of Leominster, to which he wrongfully added two manors 'when he was sheriff' (cum esset vicecomes). A somewhat important entry under Lugwardine informs us that of its four hides one was 'Reveland,' and that from the remaining three Ralf had transferred 50 acres 'to his own Reveland.' As the entry proceeds to speak of 'what the sheriff has to his own use,' it thus defines the 'Reveland.' The term occurs again further on in an entry which, though somewhat obscure, appears to imply that the sheriff had annexed to his official holding land which had been held by a thegn and should have escheated to the king.261

Other sheriffs mentioned are John 'Vicecomes,' who had held at Bullingham, and of whom nothing seems to be known, and 'Alwin Vicecomes,' 262 who had held at Wolferlow and who is named under 'Terra Regis' in Gloucestershire, as a former sheriff of that county, in which his lands had been granted with his widow to Richard 'juvenis' (fol. 167). It was as a sheriff of the same county that Roger de Pist[r]es is found transferring land to it from Herefordshire (fol. 181).

One of the greatest difficulties presented by Herefordshire in Domesday is that its hundreds were subsequently thrown, as it were, into the melting-

There is nothing to prove his identity with Ælfwine the sheriff, father of Turchil of Warwick.

<sup>&</sup>lt;sup>258</sup> An 'Ilbertus de Hereforda' occurs in the *Inq. Com. Cant.* 56, but the Domesday text gives him as 'Ilbert' de Hertford' (not Hereford). There is nothing to identify the Domesday sheriff with Ilbert Fitz Turold.

<sup>&</sup>lt;sup>259</sup> A Gilbert 'vicecomes' is mentioned under Pevensey. He was probably sheriff of its Rape.

<sup>&</sup>lt;sup>260</sup> For his oppression of the church of Worcester and unhappy end, see Heming's Cartul. (ed. Hearne).

<sup>261</sup> 'Haec terra fuit tainland T.R.E. sed postea conversa est in Reveland. Et ideo dicunt legati regis quod ipsa terra et census qui inde exit furtim aufertur regi,' fol. 181. The 'legati' are, of course, the visiting Domesday Commissioners.

pot, and that the division of the county which emerges in the 13th century was altogether different. Even the modern Hundred of Wolphy, with its many outlying portions, is a complicated entity to grasp, but when we turn to Domesday we feel utterly at sea. One of the existing eleven hundreds, that of Wigmore, includes the Herefordshire portion of that hundred of Leintwardine which Domesday surveys under Shropshire. Eleven therefore represent more than the sixteen that seem to be recognized in the Survey of the county as it then was. Five of these existing hundreds retain Domesday names, namely, Wolphy ('Ulfei,' 'Ulfagie'), Stretford ('Stratford,' 'Stradford'), Radlow ('Radelau'), Greytree ('Greitreu,' 'Greitrewes,' 'Gretrewes'), and Wormelow ('Wermelau'). But this must not blind us to the alterations in their boundaries. Greytree, for instance, now includes that Domesday hundred of 'Bremesese,' of which the name is preserved in Brooms Ash at some cross roads to the east of Ross; and Edvin Ralph, then in the hundred of 'Plegeliet,' is now a detached portion of Wolphy in the midst of Broxash Hundred. The Domesday names of hundreds that have not been retained are eleven: 'Bremesese' ('Bremesse,' 'Bromesais,' 'Bromesesce'), 'Cutestorn' ('Cutestornes,' 'Chistestornes'), Dinedor ('Dunre'), 'Elsedune,' 'Hezetre,' 'Plegeliet' ('Plegelget'), 'Stepleset' ('Stapel'), 'Stradel,'263 'Thornlau' ('Tornelaus,' 'Tornelawes'), 'Tragetreu,' 264 and 'Wimundestreu' ('Wimundstruil,' 'Wimestruil,' 'Wim' strui').265 In their place we have now the names of Broxash, Ewyas Lacy, Grimsworth, Huntington, and Webtree.

Of hundredal names the most interesting are at all times those which remind us of those moots beneath the open sky to which the men of the hundred gathered. The upland down, the landmark tree, the 'low' or burial mound, the familiar ford, these, and not the towns or villages, were the scenes of those ancient assemblies, of which the venerable names lingered on in courts for the collection of petty debts, and survive in all their force as the guide-posts of English topography. Pre-eminent, perhaps, as a trysting-place, in this region, was the tree. When Harold and his host encountered the Norman Duke, the English chronicle describes them as having 'come together at the hoar apple tree.' And the name of Hugh L'Asne's Worcestershire manor—'Tichenapletreu'—had of course the same derivation.266 Herefordshire the Domesday hundreds of Greitreu, Tragetreu, Bromesesce, and Cutestorn took their names from trees, as do the modern hundreds of Broxash and Webtree; so in Worcestershire, did the Domesday hundreds of Doddingtree ('Dodintreu,' 'Dodintret'), and Ash ('Esch,' 'Naisse'), and in Gloucestershire those of Longtree ('Langetreu,' 'Langetrewes') and 'Celflededorn.' We need not, therefore, hesitate to assign the same origin to the names of 'Alnodestreu' ('Elnoelstrui,' 'Elnoelstruil,' &c.), and 'Witentrei' ('Witentreu'), Domesday hundreds of Shropshire.287

This only occurs once, but is there prefixed to three entries.

<sup>&</sup>lt;sup>263</sup> Used once only, apparently for 'Stradelei Vallis.'

A hundred of 'Sulcet' also occurs, but only one entry (of half a hide) is assigned to it; and one of the 'Lene' manors is entered as 'In Lene Hundret.' <sup>266</sup> Derbyshire has a hundred of Appletree.

<sup>&</sup>lt;sup>267</sup> See Prof. Tait's article on the Domesday Survey of that county (V.C.H. Shrops. i, 283). Mr. W. H. Stevenson, whose authority will be deemed decisive, informs me that the suffix treu undoubtedly denotes derivation from 'tree.' Similar examples may be quoted from counties at the opposite end of England, in the hundreds of 'Wandelmestrei' and 'Homestreu,' which occur in Sussex, that of 'Helmestrei,' which is found in Kent, and Edwinestreu, now Edwinstree, in Hertfordshire.

The transformation of the Domesday hundreds is one, though only one, of the causes that make the identification of the manors named in the Survey peculiarly and notoriously difficult. Another is the frequent occurrence of changes in local nomenclature, making the places unrecognizable under their later names. A third is found in the identity of the name borne by places widely apart. There are, for instance, entered in Domesday the two Walfords, one in the north, the other in the south of the county, the two Kingstones, one in its eastern, the other in its western half; three Marstons in different places—one of them a lost name—which are the subject of five entries, as are the Maunds of four, the Mansels of five, and the Fromes of six, in addition to 'Brismerfrum' and 'Nerefrum.' To the various Hopes about the county are devoted nine, and to the Stokes five. We have further to allow for the eccentric forms employed by the Domesday scribe; Munsley appears as 'Muneslai' and 'Moneslai,' but also twice as 'Muleslage,' and the forms of the hundredal names have shown what he could accomplish.

Unfortunately, we have not for Herefordshire the assistance afforded for many counties by the works of bygone topographers. It may be that, when the parochial history has been worked out in the volumes to follow, light may be thrown on the identity of certain Domesday place-names which as yet continue obscure; but some are likely to remain insoluble puzzles. The best of all proofs of identity is that which is afforded by feudal tenure and genealogical descent, and that is why I consider the returns for Herefordshire hundreds in 1243, printed in the Testa de Nevill (62-7), to be the most valuable material that we have for Domesday identification.<sup>268</sup>

One of the most interesting identifications that one has had to make in this county is that of the great nameless manor which Alvred of Marlborough held in Thornlaw Hundred, and which is assessed at no less than 15 hides. For we read that his daughter holds it of him. Happily, the invaluable return of 1243 proves at once that it was Pencombe:—

In Pencumbe xv hide, unde Johannes de Wyten medietatem de Roberto Tregoz de honore de Ewyas de veteri feoff' per servicium militare. Et Thomas de Hemegrave alteram medietatem de Roberto de Wyten. Et idem Robertus de eodem ut prius.<sup>269</sup>

We turn next to the cartulary of St. Peter's Gloucester, and find that Eustace, miles, son of Turstin the Fleming (Flandrensis) gave to that house a hide of land at Sidnal ('Suthale') in Pencombe,<sup>270</sup> and then that this gift is confirmed by his mother Agnes, widow of Turstin Flandrensis, as that of her son Eustace 'dominus de Witteneye.' <sup>271</sup> Now we can amplify the Domesday entry, and identify not only the manor but its tenant: Alvred's daughter was that 'Agnes, wife of Turstin de Wigmore,' who was also holding of her father the 15-hide manor of Great Cowarne. We thus identify Turstin 'de Wigmore' with Turstin 'the Fleming,' named in an entry on Ralf de Mortimer's fief. There has been no little speculation about this Turstin, to whom William Fitz Osbern appears to have given Cleobury 'Arza' (afterwards Cleobury 'Mortimer') in Shropshire as well as land in Herefordshire, probably with Wigmore Castle, which afterwards passed into the hands

<sup>270</sup> Op. cit. 115. <sup>272</sup> V.C.H. Shrops. i, 289.

<sup>&</sup>lt;sup>268</sup> They are a good deal nearer to the date of Domesday than are the 14th-century returns printed in Feud. Aids, and they are also much fuller.

Testa de Nevill, 64.
 Ibid. 107. This was in Abbot Reginald's time.

of Ralf de Mortimer. This would account for his style 'de Wigmore,' which

Eyton could not explain.

Turstin may have been dispossessed for adhering to Earl Roger (1074), but his wife would retain Pencombe and Cowarne, which she held in her own right, and she is accordingly entered as tenant of them in the Great Survey. Her mention of her son as 'lord of Whitney' is of great importance as enabling us to trace the heirs of Turstin 'the Fleming,' and to identify their seat. Whitney, from which they derived their name, was a stronghold on the Welsh border, opposite Clifford, on the Wye. We have seen that in 1243 Pencombe was held by the Whitneys, and in 1283 Eustace de Whyteneye had a grant of free warren in Pencombe, Whitney, and 'Caldewell.' 278 Again, in the great inquest on the death of John de Tregoz, in 1300, we find Pencombe and 'Caldewell' held by Eustace de 'Wytheneye' of the Honour of Ewias as his ancestress had held Pencombe in Domesday. The manor is again entered as held, under Tregoz, by Eustace de Whitney in 1303 and 1316, and by Robert Whitney in 1428 and 1431.274 The importance of thus tracing the heirs of Turstin is that it enables us at once to challenge Eyton's identification of him as the Turstin who held of Lacy at King's Stanford, of William de Scohies at Caerleon, and of Turstin Fitz Rou at Marcle, 275 as well as of Ralf de Mortimer at Huntington in Ashford Carbonel, Lingen,<sup>276</sup> and Shirley.

Eyton knew that Turstin 'de Wigmore' had been alleged to be identical with Turstin 'the Fleming,' but he seems to have read Domesday, in error, as showing us Turstin 'de Wigmore' in possession in 1086, while Turstin 'the Fleming' had 'suffered exile and total forfeiture,' 277 in his opinion, before the Domesday Survey. Having come to this wrong conclusion, he naturally could not account for Turstin 'de Wigmore' being so styled in 1086. He then made the further error of identifying Turstin 'de Wigmore' with other men of the name, whose lands did not descend to his heirs, 278 which affords yet another proof of the danger of identifying, without evidence, men who appear in Domesday with the same Christian name.

One can only deal with two or three of the problems of identification raised by the county survey. The two 15-hide manors of 'Lene' entered among the king's lands appear to be now represented by Kingsland and Eardisland, to the west of Leominster, the 'land' being demonstrably a corruption of 'lane,' but one cannot say which was which. They seem to have descended together through Braose to Mortimer, and there is evidence that the Braoses had a chief seat at Kingsland, from which doubtless William de Braose made his furious raid on Leominster, when he burst into revolt in the reign of John. The adjacent Tosny manor of 'Leine' became similarly corrupted in name through Monk 'lane' into Monkland.

The Herefordshire 'Bradeford' of Domesday is one of the most puzzling of the lost place-names in the Survey. It forms the subject of two entries, and

<sup>&</sup>lt;sup>273</sup> Cal. Chart. R. ii, 271. 'Caldewell' is not there identified.
<sup>274</sup> Feud. Aids, ii. Later still, 'Eustace Whiteney of Whiteney, Esq.' occurs under Hen. VII (Cal. of Inq. Hen. VII, i, 254), and Thomas Whitney, at the Restoration, as an intended knight of the Royal Oak.
<sup>275</sup> These identifications are accepted by Prof. Tait; see V.C.H. Shrops. i, 289. Eyton further identified him with a Turstin holding of Alvred de Marlborough at Stretford and on a Wiltshire manor.

Turstin is claimed as the ancestor of the Lingens of Lingen, whose male line is still extant. 278 See his Hist. of Shrops. v, 74-7. 277 Hist. of Shrops. iv, 75.

of that which is found on the fief of William de Scohies it has been suggested that it refers to Broadfield. But Broadfield duly occurs as 'Bradefelle' among the members of Leominster in the very column which contains the 'Bradeford' of William Fitz Norman. Moreover, there is proof that Domesday made no mistake, for a 'Bradeford' can be traced as held by William's heirs, the lords of Kilpeck. The most important item of this evidence is an entry, early in the reign of Henry III, that William de Cantilupe held a moiety of 'Bradeford' as guardian of John de Kilpeck per serjant' for', the other moiety being held by the monks of Reading, in almoin, of the gift of Roger, Earl of Hereford.<sup>279</sup>

In 1257 free warren was granted to Philip Marmion, who had married one of the Kilpeck co-heiresses, in 'Lastres, Bradeford, and Lafferne,' 280 and when he died these three manors were found to be of his wife's inheritance. As to the other moiety a document of 1150-4 connects the 'villula de Bradeford' with Leominster and the earl of Hereford, but here again the place is not identified. One seems driven to recognize it in the present Broadward, a township where the Arrow is crossed by the great high road from Leominster, and which therefore might well be named from the 'broad ford,' as Stretford to the west represents the crossing of a stream by the Watling Street, or as Ford to the south, on the Hereford road, derives its name. The Domesday 'Bradeford' is entered as having a fishery and a water-mill, and the only difficulty is that which is caused by the singular corruption of the name.

The last case I shall deal with is that of a 'Lude' entry, in which that eminent authority, Mr. Eyton, in his feudal History of Shropshire, claimed to have discovered the Domesday mention of Ludlow. Although, so far as we know, Ludlow has always been in Shropshire and is divided from Herefordshire by the Teme, he pitched upon this Herefordshire entry as resembling (though not representing) the name of Ludlow. He was influenced by the accident of its being entered next to Ludford (opposite Ludlow). Now the entry in question, it is essential to explain, is but one of three relating to 'Lude,' which is placed by all three in 'Cutestorn Hundred,' where the name is still represented by Upper and Lower Lyde and Lyde Court, some three miles north of Hereford. There is absolutely no reason to suppose that the three entries do not all relate to the same place, and as a matter of fact the hundredal survey of 1243 enters under 'Lude' three separate holdings as held of the Lacy fee of Weobley.288 With that fee Domesday connects all its three 'Lude' entries: - Lude (184), Ralf under Roger de Laci, 2 hides; Lude (184), Ralf under Roger de Laci, I hide; Lude (186b), Roger de Laci under Osbern Fitz Richard, 2 hides: total, 5 hides. Here we have two features familiar to the Domesday student: (1) the total of 5 hides formed by the items when combined; (2) the acceptance by Laci of the position of under tenant on 2 hides 283

<sup>&</sup>lt;sup>279</sup> Testa de Nevill, 70. A less accurate version on p. 73 shows us William de Cantilupe holding in 'Bredeford' by serjeanty, and the Red Book contains a similar entry, but the editor cannot identify 'Bradeford.'

<sup>&</sup>lt;sup>250</sup> Cal. Chart. R. i, 474. Here again 'Bradeford' is not identified.

<sup>281</sup> Brit. Mus. Index to Chart. and Rolls, 444.

<sup>&</sup>lt;sup>282</sup> Testa de Nevill, 63-4. There is also a fourth entry of a portion in ecclesiastical hands which does not concern the problem.

<sup>&</sup>lt;sup>263</sup> It is this portion which was claimed by Mr. Eyton as Ludlow. The elimination of Osbern Fitz Richard's overlordship would have to be accounted for on either interpretation of the entry.

in order to get all five into his hands. The identification, therefore, of the Domesday entries seems not open to question.

Mr. Eyton started from this position:

Where is Ludlow itself?—Ludlow, a place whose very name bespeaks antiquity, whose very stones tell of an existence almost, if not quite, as early as Domesday—where is Ludlow in that Record? Are we to conclude that architectural features are no tests of antiquity, and that Legends are wholly false, or are we to adopt the still more startling theory that Domesday is an imperfect and incomprehensive Record?<sup>284</sup>

Convinced, he wrote, that 'the Borough or Town of Ludlow' existed 'long before the Conquest, and that among the Boroughs of Shropshire, Ludlow, in point of antiquity, ranks second only to Shrewsbury, 285 he admitted that 'the mention of a Provost (prepositus) and a Smith' at our Herefordshire manor of 'Lude' may not be enough 'to suggest the idea of an existent borough, or the intended residence of a great feudal chief, but the ideas being suggested already, they are in strict harmony,' 286 which shows the power of self-delusion even in the greatest antiquaries. We further read that 'the prepositus said by Domesday to be resident at Lude must be taken as the Reeve, or chief officer of the borough, under Roger de Laci.'287 Yet we have seen that prepositi and fabri are mentioned not unfrequently on rural manors in Herefordshire, and no unbiased person could discover in the entry in question the faintest hint that 'Lude' was a borough or was different from any other small rural manor.288

The fundamental assumption that Ludlow must be named in Domesday seems to me baseless. Even if a castle already stood there, 289 Domesday might well ignore it, as in other well-known cases, while the existence of a borough at the time finds no countenance in Domesday and certainly none in the 'Lude' entry. The termination of Ludlow's name does not suggest an ancient settlement, and even if it did, the name of 'Lude' in no way represents it.

Briefly, while agreeing with Mr. Eyton that the castle was a Laci foundation, I believe that it arose on their great manor of Stanton (Lacy), assessed at 20½ hides and valued at £25.290 It is a significant fact that Domesday records thereon three holdings, each of a hide and a half, in the hands of men with Norman names, which is suggestive, if not of a castle, at least of the residence of a great lord.291 Where Stanton touched the Teme, opposite Ludford, the castle would be placed to grip the passage, and, as it grew in importance, would, as in some other cases, become the centre of a separate parish, named after it. It has been shown above that at the time of Domesday, 'boroughs' were already forming around the Norman castles, 292 and at Ludlow the process may have been helped by the Lacis granting to the burgesses who clustered about their stronghold, as their lord had done at Hereford, 'the laws of Breteuil.' 293

<sup>&</sup>lt;sup>284</sup> Op. cit. v, 233. Op. cit. v, 236. This 'Lude' was valued at 25s. only T.R.E. and 30s. T.R.W. <sup>285</sup> Op. cit. v, 279-80.

<sup>&</sup>lt;sup>283</sup> Yet this identification was accepted without question by Clark (Med. Mil. Archit.), and Mackenzie

<sup>(</sup>Castles of Engl.), and not rejected by Prof. Tait (V.C.H. Shrops. i, 287.)

289 Mr. St. John Hope is of opinion that there is nothing older at the castle than the days of William Rufus.

290 Dom. Bk. i, 260b.

291 See pp. 273, 278, above.

292 See p. 300. Rufus. See pp. 2/3, 2/0, above. See pp. 2/3, 2/0, above. Eyton noted that a burgess, in 1221, made a grant in frank-marriage 'according to the law of Bretoil,'

It is not only, however, when dealing with Eyton's theories that the student of the Herefordshire Domesday has to be wary in his steps. Even in the volume of Feudal Aids, 294 where the arrangement, in the records themselves, of the knights' fees under their hundreds makes confusion inexplicable, the holdings in Lyde (in Grimsworth Hundred) are hopelessly confused in the Index with those in Upper and Lower Lye, far away in Aymestrey (in 'Stretton' Hundred), in spite of the names being written as 'Lude' and 'Leye' respectively. Thus 'Lude' Muchegros ('Lude' Beaumys) is identified with Upper Lye, and 'Lude' Prior with Nether Lye, and the work to which he turns for help will lead him hopelessly astray.

294 Vol. ii (1900), 587.

#### NOTE

THE reader should bear in mind throughout that the date of the Domesday Survey is 1086; that the 'time of King Edward' [T.R.E.], to which it refers, normally means the date of his death (5 January 1066); and that the intermediate date, which is sometimes spoken of as 'afterwards' and sometimes as 'when received,' is that at which the estate passed into the hands of the new holder. When the word semper (always) is used, it means that the figures were the same in 1086 as in 1066. The Domesday 'hide' was a unit of assessment divided into four 'virgates.' Where the land had not been so assessed to the (Dane)geld, or land-tax, it is entered as 'carucates of land.' The 'hide' and 'virgate,' it must be remembered, were fiscal, not areal, measures. The 'demesne' of a manor denotes that portion which the holder (whether a tenant-in-chief or only an under-tenant), or his representative, worked as a home farm with the assistance of labour due from the peasants who held the rest of the manor from him. The classes of the holders of lands and peasantry are discussed in the introduction. The essential element of the plough (caruca) was its team of oxen, always reckoned in Domesday as eight in number. The phrases that a holder of land had the right to leave (recedere) his lord or to go where he would (ire quo volebat) have the same meaning and denote that he was free to commend himself to another lord.

It is necessary to remember that when Domesday speaks of a place as held by a certain tenant, it does not follow that the whole of it is meant. It may have comprised other manors, which form the subject of separate entries.

For notes to which '(J. H. R.)' is appended Mr. Round is responsible. Identifications kindly contributed by Mr. J. G. Wood, F.S.A., are denoted by '(J. G. W.).'

#### NOTES TO DOMESDAY MAP

(Compiled by L. F. SALZMANN, B.A.)

In this Map the manors held by the King, the Bishop and Canons of Hereford, and the two great lay tenants-in-chief, Roger de Laci and Ralf de Mortimer, are distinguished. The castles mentioned in the Survey are also shown.

For convenience of reference the rivers are

given, with their modern names, although only the Wye is actually referred to in the Domesday Survey. The county boundary is also shown in

its present form.

The position of the manors has been fixed, where possible, by the site of the church. The name of a manor or vill is often given in more than one form by Domesday, but only one of these forms can be shown on the Map. attempt has been made to indicate the hundreds, their boundaries at the time of Domesday being for the most part uncertain.

# DOMESDAY MAP of HEREFORDSHIRE



### HEREFORDSCIRE

In the city of HEREFORD in the time of King Edward there were 103 men dwelling together within and without the wall, and they had the following customs.

If any one of them wished to withdraw from the city he could with the consent of the reeve (prepositus) sell his house to another man who was willing to do the service due therefrom, and the reeve had the third penny of this sale. But if anyone through his poverty could not perform his service, he surrendered his house without payment to the reeve, who saw that the house did not remain empty and that the king did not lack (his) service.

Within the wall of the city each whole burgage (masura) rendered  $7\frac{1}{2}d$ . and 4d. for the hire of horses (ad locandos caballos) and on three days in August reaped (secabat) at Maurdine [Marden], and (its tenant) was (present) on one day for gathering the hay where the sheriff pleased. He who had a horse proceeded three times a year with the sheriff to the pleas and to the hundred (courts) at Urmelauia [Wormelow]. When the king was pursuing the chase, from each house according to custom went one man to the beating (ad stabilitionem) in the wood.

Other men who had not whole burgages provided guards (inewardos) for the hall when the king was in the city.

When a burgess serving with a horse died, the king had his horse and weapons. From him who had no horse, if he died, the king had either 10s. or his land with the houses (thereon). If anyone, when he came by his death (morte preventus), had not bequeathed (divisisset) his possessions the king had his goods (pecuniam). These customs had they who lived in the city, and others likewise who dwelt without the wall, except only that a whole burgage outside the wall only gave  $3\frac{1}{2}d$ . The other customs were common (to both). Whosesoever wife brewed within or (et) without the city gave 10d. according to custom.

There were six smiths in the city; each of them rendered one penny from his forge, and each of them made 120 shoes (ferra) of the king's iron, and to each one of them was given 3d. on that account (inde) according to custom, and those smiths were quit from every other service.

There were seven moneyers there. One of these was the bishop's moneyer. When the coinage was renewed each of them gave 18s. for receiving the dies, and from the day on which they returned, for one month, each of them gave the king 20s., and likewise the bishop had from his moneyer 20s.

When the king came into the city the moneyers coined money as much as he willed for him, that is of the king's silver.

And these seven had their own sac and soc.

Upon the death of any of the king's moneyers the king had 20s. for relief.

But if he should die intestate (non diviso censu), the king had all his income (censum).

If the sheriff went into Wales with the army these men went with him. So that if anyone commanded to go did not go, he fined 40s. to the king.

In the same city Earl Harold had 27 burgesses who had the same customs as the other burgesses.

From the same city the reeve rendered 12li. to the king and 6li. to Earl Harold, and he had in his farm (censu) all the aforesaid customs.

The king, however, had in his demesne the three forfeitures, namely (for) breaking his peace, for house-breaking (beinfara), and for assault (forestellum).

Whosoever committed one of these (crimes), fined 100s. to the king no matter whose man he might be.

The king now has the city of Hereford in demesne, and the English burgesses dwelling there have their former customs; but the French burgesses are quit for 12d. from all their forfeitures, except the three aforesaid.

The city renders to the king 60li. by tale of blanched money (de candidis denariis). Among (them) the city and 18 manors which render their farm in Hereford account for (computantur) 335li. 18s., besides (exceptis) the pleas in the hundred and county (courts).

In Arcenfelde [Archenfield] the king has three churches. The priests of these churches bear the king's embassies (ferunt legationes) into Wales, and each of them sings two masses every week for the king.

If one of them dies the king has 20s. from him by custom.

If one of the Welshmen steals a man or woman, horse, ox, or cow, upon conviction thereof, he first restores the stolen (goods), and (then) gives 20s. for the offence.

For a stolen sheep, however, or a bundle of sheaves (fasciculo manipulorum), he pays 2s. fine.

If anyone kills one of the king's men, and commits heinfare, he gives the king 20s. in payment for the man, and for his offence 100s. If he kills a thane's man he gives 10s. to the dead man's lord.

If so be that a Welshman shall kill a Welshman, the relatives (parentes) of the slain meet together, and plunder the slayer and his kin (propinguos), and burn their houses until on the morrow at about noon the corpse of the dead man is buried. Of this plunder the king has the third part, but they have all the rest without interference (quietum). And moreover (Aliter autem) he who shall have set a house on fire, and been accused thereof, defends himself by 40 men.4 And if he shall be unable to do so, he shall pay 20s. to the king.

If anyone shall have concealed a sestier of honey due by (de) custom, upon proof thereof he renders for one sestier five, if he holds so much land as should give (it).

<sup>&</sup>lt;sup>1</sup> Money purified by melting down and assayed.

<sup>2</sup> The southern point of the county, west of the Wye. See Introd. 266. <sup>2</sup> See Introd. 300.

If the sheriff calls them out to the shiremoot (siremot), six or seven of the best of them go with him. He who does not go when called upon gives 2s. or an ox to the king, and he who stays away from the hundred pays so much.

He pays a like fine who does not go forth when ordered by the sheriff to go with him into Wales. For if the sheriff does not go, none of them shall go.

When the army goes forth against the enemy these same men, according to custom, make the vanguard (avantwarde), and on the return the rearguard (redrewarde).44

These were the customs of the Welsh T.R.E. in Arcenefelde [Archenfield].

Riset of Wales renders to King William 40li.

From the land of Calcebuef the king has 10s. over and above the farm.

# HERE ARE NOTED THOSE WHO HOLD LANDS IN HEREFORDSCIRE AND IN ARCENEFELDE AND IN WALES

I KING WILLIAM

II The Bishop of Hereford

III The Church of Cormeilles

IIII The Church of Lyre

v The Church of Gloucester

vi The Church of St. Guthlac

vii Nigel the Physician (medicus)

vIII Ralph de Todeni

ix Ralph de Mortemer

x Roger de Laci

xi Roger de Mucelgros

xII Robert Gernon

xiii Henry de Ferieres

XIIII William de Scohies

xv William son of Baderon

xvi William son of Norman

xvII Thurstan son of Rolf

xvIII Albert of Lorraine (Lotharien-

sis)

xix Alured de Merleberge

xx Alured de Hispania

xxI Ansfrid de Cormeilles

xxII Durand of Gloucester

xxIII Drew son of Poinz

xxiiii Osbern son of Richard

xxv Gilbert son of Turold

xxvi Ilbert son of Turold

xxvII Herman de Dreuues

AAVII TICIIIIAII de Dicades

xxvIII Humphrey de Buivile

xxix Hugh Lasne

xxx Urso de Abetoth

xxxi Grifin

xxxii Rayner

xxxiii Carbonel

xxxIIII The Wife of Ralph the

Chaplain

xxxv Stephen

xxxvi Madoch. Edric. Elmer.

<sup>&</sup>lt;sup>4a</sup> This privilege of leading the host into battle is also found among the privileges of the men of Arvon in the Venedotian Code; see *Ancient Laws of Wales*, i, 105.

fol. 179b.

#### I. THE KING'S LAND

#### In Bromesais Hundred

King William holds LINTUNE [Linton]. King Edward held (it). There were there 5 hides and they rendered the fourth part of one night's farm. Now it is greatly decreased (imminutum). There are there in the demesne 3 ploughs and (there are) 10 villeins and 5 bordars with 12 ploughs. (There are) there 6 serfs and a mill worth 8d.

One Frenchman there holds half a hide which rendered 4s. T.R.E.

This manor as it is now renders 10li. blanch. Of this manor St. Mary de Cormeliis [Cormeilles] holds the church and priest with its lands, and all the tithes, and I villein with I virgate of land. Of this same manor Ansfrid de Cormeliis holds 2 hides and 9 villeins and 9 ploughs,5 and William son of Baderon holds one virgate of land which belonged to it T.R.E.6

Ilbert the sheriff holds as part of his farm (ad firmam suam) of Arcenefeld the customary dues of all honey and sheep, which belonged to this manor T.R.E.

William son of Norman has thence 6 sestiers of honey and 6 sheep with (their) lambs and

#### In Greitrewes Hundred

The King holds Lucuordne [Lugwardine]. King Edward held (it). (There are) there 4 hides. In the demesne there are 3 ploughs and (there are) 9 villeins and 3 bordars and I serjeant of the king. Among them all they have 10 ploughs. (There are) there three serfs and a mill worth 10s.

This manor renders now 10li. blanch and one ounce of gold.7 T.R.E. it was not put out to farm and therefore it is not known how much it was then worth.

The tithes of this manor and I villein with I virgate of land St. Mary de Cormeliis [Cormeilles] holds.

One of these 4 hides was and is Reveland.8 There are 4 bordars and 1 bondwoman with 2 ploughs, and (there are) there 2 mills worth

Of the other 3 hides Ralph de Bernai added 50 acres to his Reveland, and I bordar and a mill worth 7s.

What the sheriff has for his use is worth 60s.

<sup>5</sup> This appears to refer to Ansfrid's holding of 2 hides at Aston ('Estune') entered under his fief, but the details do not tally (J.H.R.).

<sup>6</sup> This virgate will be found under William son of

Baderon's land (J.H.R.).

<sup>7</sup> The words in italics have been inserted in the margin of the MS.

8 See Introd. 301.

The King holds Chingestone [Kingstone].9 King Edward held (it). (There are) there 4 hides. On the demesne there are 2 hides less I virgate, and there is there I plough, and there could be another. (There are) also 6 villeins with a reeve (prepositus) and 3 bordars and 1 smith. Among them all they have 6 ploughs. The wood there called Triueline [Treville] renders no dues except venison. The villeins living there T.R.E. carried venison to Hereford, and they did no other service as the shire says.

All the tithes of this manor St. Mary of Cormeilles holds and I villein with I virgate of land. Ilbert son of Torold holds of this manor

2 hides as one manor.

To this manor belonged T.R.E. a part of the land (of) Cheweshope [Cusop], 9a and the dues from it went into (pergebat in) Chingestone. Roger de Laci holds (it) of the King.

To this manor the sheriff added WAPLEFORD I in the time of Earl W[illiam].

This manor Aluuin held and he could go to what lord he pleased.

(There are) there I hide of land (and) 2 There are there 2 villeins with ploughs.

All this thus added together renders to the King 50s. of blanched money and one hawk.

The King holds MAURDINE [Marden]. King Edward held (it). There were several hides there, but of these only 2 pay geld. This land is divided among many men. The King has in demesne 3 ploughs and (there are) 25 villeins and 5 bordars and 2 oxmen and 4 serfs and 4 coliberts. Among them all they have 21 ploughs. (There is) there a mill worth 20s. and 25 sticks The wood renders 20s. There is there a fishery which pays no rent. From the salt pits in Wich [Droitwich] 9 loads of salt (are paid) or 9d. And also 8 serjeants of the King have 7 ploughs.

Of this manor William son of Norman holds 3 hides less 1 virgate.10 And Norman the swineherd holds half a hide of this manor. And Earl William alienated (posuit foris) from this manor one virgate and gave it to a certain burgess of Hereford. And Anschitil holds 40 acres between open (planam) land and meadow, which acres the reeve (prepositus) of King Edward gave

(prestavit) to his kinsman.

Three radknights held the land of William son of Norman and they could not be parted from this manor.10 From the profits (mercede) of

9 The parish, south-west of Hereford.

9a Near Hay (J.G.W.).

<sup>10</sup> These entries should be compared with those of two manors in William son of Norman's land which represent them, but are entered as only 21/2 hides between them (instead of 23 hides) (J.H.R.).

the land of this manor there arise 9s. T.R.E. it rendered 9li. of blanched money. Now it is assessed at 16li.

The King holds LENE [Kingsland].11 King Edward held it. (There are) there 15 hides.

On the demesne there are 5 ploughs and 3 more ploughs can be (there). (There are) also 21 villeins and 9 bordars with 17 ploughs. (There are) there 10 oxmen and 2 serfs and 6 coliberts. (There are) there 2 mills rendering 26s. and 4d. and 500 eels. From the wood and pasture the profits are 8s., from customs and from the mills and villeins and tenants in socage 100s. less 5s., besides the eels.

Of this manor Ralph de Mortemer holds one member Mereston 12 [? Marston] as 2 hides. Roger de Laci also holds a manor of 2 hides called Hope [ ], and another of I hide called Street [Street], and another manor of I hide called LAYTONE [Lawton in Kingsland]. The same Roger holds half a hide which a swineherd held T.R.E.

This land Earl William gave to Walter de

Of this same manor Ilbert son of Torold holds half a virgate which a swineherd held. This land is called ALAC [

T.R.E. it was worth 6li. Now it is farmed for 13li. and 3s.

#### IN LENE HUNDRED

The King holds LENE [Kingsland].13 Earl Morcar held (it). In the demesne there are 3 ploughs and (there are) 19 villeins and 9 bordars and 2 radknights with 16 ploughs. (There are) 6 serfs and 2 bondwomen and 6 coliberts. (There are) there 2 mills worth 25s. The wood renders 40d. The villeins give as customary service (de consuetudine) 13s. and 4d., and the coliberts render 3 sestiers of wheat and barley and  $2\frac{1}{2}$  sheep with their lambs and  $2\frac{1}{2}d$ .

Of these 2 manors St. Mary de Cormeliis [Cormeilles] holds the churches and priests and tithes and 2 villeins in frankalmoign of the King.

T.R.E. it was worth 6li. Now 12li. of

blanched money.

The reeve of this manor had the custom T.R.E. that on the arrival of his lady at the manor he should present to her 18 'ores' of pence so that she should be well-disposed (laeto animo), and the steward and the other servants had 10s. from him.

#### IN WIMESTRUIL HUNDRED

The King holds Merchelai [Marcle]. Earl Harold held it. There are 17 hides paying geld. On the demesne are 4 ploughs and (there are)

> 11 See Introd. 304. 12 Ibid. 275.

13 Ibid. 304.

36 villeins and 10 bordars with 40 ploughs. These villeins plough and sow with their own seed 80 acres of wheat and as many with oats, save 9 acres. Of these 6 belong to William son of Baderon and 3 to St. Mary of Cormeilles.

In this manor are a reeve and a Frenchman, and a radknight. These have 3 ploughs. (There are) there 8 serfs and an oxman and 6 bond-

The mill there renders nothing beyond the sustenance of him who keeps it.

The wood there renders 5s. which are given to Wich [Droitwich] for 60 mitts of salt. At Hereford are 4 burgesses who render to this manor 18 ploughshares (socos carrucis).

Of this manor there is one hide at Turlestane ] which T.R.E. rendered 50 'masses' of iron and 6 salmon. Now this land is in the

Of this same manor the sheriff holds I hide, and has there 2 ploughs.

In the same manor are 58 acres of land reclaimed (projecte) from the wood, assart, 15 and the bailiff and 2 other men hold several acres of this same land.

St. Mary of Cormeilles has the tithes of this manor and the priest and the church with I villein holding I virgate of land.

T.R.E. it was worth 30 li. and now it is of the same value.

#### IN BREMESSE HUNDRED

The King holds CLIVE [Cleve, a tithing in Ross]. Earl Harold held it. (There are) there 14½ hides with a berewick called WILTONE [Wilton]. On the demesne are 4 ploughs and (there are) 20 villeins and a reeve and 11 bordars with 16 ploughs. (There are) there 9 serfs and 5 bondwomen and 1 oxman. (There are) there 2 mills worth 6s. and a fishery which renders nothing.

To this manor belong so many Welshmen as have 8 ploughs and render  $10\frac{1}{2}$  sestiers of honey and 6s. and 5d.

Of this manor there is in the forest of King William as much land as rendered T.R.E. 6 sestiers of honey and 6 sheep with their lambs.

Of that manor William son of Baderon holds I hide and 3 virgates, and Godfrey holds I virfol. 180.

gate, Roger de Laci holds half a fishery which belonged to this manor T.R.E.; and then there belonged there 25 mitts of salt from WICH [Droitwich]. At the same time there were in the same manor 2 hides less 1 virgate which are in Ascis [Ash Ingen]. Alvred de Merleberge holds them now. Harold held them until his death, and the shire says that they are (parcel) of

<sup>15 &#</sup>x27;Essart' interlined as gloss.

this manor. This manor renders 91i. and 10s. of blanched money.

#### IN PLEGELIET HUNDRED

The King holds STANFORD [Stanford Regis], <sup>16</sup> Queen Edith held (it). On the demesne are 3 ploughs, and (there are) 4 villeins and 2 bordars with 3 ploughs. (There are) there 6 oxmen and 4 bondwomen.

(There are) there a mill worth 6s. and I swineherd and I cowherd.

St. Mary of Cormeilles has the tithes of this manor with I villein.

T.R.E. it was worth 100s., now it pays 100s. of blanched money.

The King holds Leofminstre [Leominster]. Queen Edith held (it), with 16 members. Lustone [Luston in Eye], Iarpol [Yarpole], ELMODESTREU [Aymestrey], BRUMEFELDE [Brimfield], ESTUNE [? Ashton in Eye], STOCTUNE [Stockton in Kimbolton], STOCA [Stoke Prior], Mersetone [Marston], Uptone [Upton in Brimfield], Hope [? Hope in Laysters], Bretlege [? Brierley in Ivington], Ivintune [Ivington], Cerlestreu [Cholstrey], Lentehale [Leinthall], Gedeven [Edvin (Ralph)], Fernelau [Farlow]. Stock Prior]

In this manor with these members were 80 hides, and in the demesne 30 ploughs. There were there 8 reeves and 8 beadles (bedelli) and 8 radknights and 238 villeins and 75 bordars and 82 between (inter) the serfs and bondwomen. All these together had 230 ploughs. The villeins ploughed 140 acres of the lord's land and sowed (them) with their own wheat-seed and gave according to custom 11 li. and 52d. The radknights gave 14s. and 4d. and 3 sestiers of honey. There were also 8 mills worth 73s. and 25 sticks of eels. The wood rendered 24s. and pannage.

Now the King has in this manor in demesne 60 hides and 29 ploughs; and (he has) 6 priests and 6 radmen and 7 reeves and 7 beadles and 224 villeins, and 81 bordars and 25 between the serfs and bondwomen. Among them all they have 201 ploughs.

These (men) plough and sow with their own wheat 175 acres and give according to custom 7li. and 14s. and  $8\frac{1}{2}d$ . and 18s. for (ad) fish, and 8s. for salt and 75s. (worth) of honey. (There are) there 8 mills worth 108s. and 100 sticks of eels less 10. The wood 6 leagues long and 3 leagues wide renders 22s. Out of these 5s. are given towards buying wood in WICH [Droit-

wich] and 30 mitts of salt are had thence.<sup>21</sup> Each of the villeins who has 10 pigs gives 1 pig for pannage.

Of the land reclaimed from the wood (exsartis silvae) the profits are 17s. and 4d. (There is)

there a hawk's eyrie.

To this manor Hugh Asne (pays) 5s., Roger de Laci 6s. and 8d., Ralph de Mortemer 15s., Bernard the bearded (barb') 5s., Ilbert 5s., Osbern 6s. and 8d., Godmund 5s., Godwin 40d., Alward 40d., Semer 40d., Vitard 3s., Elward 30d., Brismer 20d., Eluard 20d.

In all this rent, in addition to the eels, 23li.

and 2s. are accounted for.

This manor is farmed for 60li., besides the maintenance (victus) of the nuns.

The county says that if it were freed from other claims (si deliberatus esset) this manor could be valued at six score pounds, that is 120 pounds.

Of 80 hides of this manor Urso de Abetot holds 3 hides in Gedeven [Edvin (Ralph)]; Roger de Laci (holds) 3½ hides in Humber [Humber], and 1½ hides in Brochemt(on) [Brockmanton in Pudleston]; Ralph de Mortemer (holds) I hide in Elmodestreu [Aymestrey], and 8 hides paying geld in Letehale [Leinthall], William son of Norman (holds) half a hide in Lege [Lye (? Lower) in Aymestrey] and I hide in Ettone [? Eyton].<sup>22</sup>

In these (hides) are 3 ploughs in demesne and 11 villeins and 22 bordars and 2 priests. Among them all they have 10 ploughs and 16 serfs and

2 mills worth 24s.

At Letehale [Leinthall] is wood I league in length and I league in breadth.

Among them all these lands are worth 12li.

and IIs.

Lewin Latinarius holds as much of the land of Leofminstre as is worth 25s.

Of the lands of Ralph de Mortemer in Elmodestreu [Aymestrey], St. Peter has 15s.

To this manor there used to belong T.R.E. 2 manors, STANFORD [Stanford Regis] and MERCHELAI [Marcle], which now give to the King 301i. as is said above.

## THE FOLLOWING LANDS BELONGED TO (jacebant ad) LEOFMINSTRE T.R.E.

Hugh Asne holds HETFELDE [Hatfield]. Letflede held (it). (There are) there 5 hides. Of these 2 hides and 1 virgate paid geld. On the demesne are 3 ploughs. (There are) there a reeve (prepositus) and 2 radknights and 2 Frenchmen and 8 bordars with  $6\frac{1}{2}$  ploughs, and also 2 men who hold nothing. T.R.E. it was worth 4li., now 100s.

<sup>&</sup>lt;sup>21</sup> See Introd. 295.

<sup>22</sup> Or Eaton in Leominster.

<sup>16</sup> In Stanford Bishop.

<sup>17</sup> Formerly 'Aylmondestre,' Feud. Aids, ii, 377.

 <sup>18</sup> Or possibly Eyton, or Eaton in Leominster.
 19 Formerly 'Yeddefen.' See Feud. Aids, ii, 383.

<sup>20</sup> In Salop. See Introd. 264.

Osbern son of Richard holds WAPLETONE [ ], of the gift of the king as it is said. He himself held (it) T.R.E. (There are) 2 hides paying geld there. There is there I radknight; also I villein and 22 bordars. Among them all they have 6 ploughs. It is worth 205.

Urso de Abetot holds BUTERLEI [Butterley].<sup>23</sup> Chetel held (it). (There is) there I hide. On the demesne are two ploughs and 4 bordars with I plough and 4 oxmen. It is worth 40s.

The Abbess holds Fencote [Fencote]. She herself held (it) T.R.E. (There are) there I hide free (from geld) and 4 villeins with 2 ploughs.

Roger de Laci holds Hantone [Hampton].<sup>24</sup> On the demesne is 1 plough. T.R.E. it was worth 405., now 305.

The same Roger holds HANTONE [Hampton], and Gilbert (holds it) of him. Edwi held (it). (There are) there 2 hides. On the demesne are 2 ploughs, and (there is) a reeve and 2 radknights and 2 bordars with 4 ploughs. It was worth 20s., now 40s.

The same Roger holds SARNESFELDE [Sarnesfield], and Godmund (holds it) of him. Seric held (it). (There are) there  $1\frac{1}{2}$  hides. On the demesne is I plough; and (there are) 10 bordars with 3 ploughs. (There are) there I serf and I bondwoman. This land was waste; now it is worth 20s.

The same Roger holds Gadredehope [Gater Top in Hope-sub-Dinmore], and Walter (holds it) of him. Ælwin held it. (There is) there I hide, and on the demesne (is) I plough. (There are) there I villein and 7 bordars with 2 ploughs. (There are) there 2 serfs and 2 bondwomen, and also I plough can be there. It is worth 205.

Ralph de Mortemer holds WIGHEMORE [Wigmore]. Elward held (it). (There is) there half a hide. Wigemore Castle lies there (sedet in ea).

The same Ralph holds Bromefelde [Brimfield]. Ernesi held it. (There are) there 3 virgates of land. On the demesne (are) 1 plough and 2 serfs. It is worth 7s. and 6d.

Ralph de Todeni holds Forne [Ford] <sup>25</sup> for I hide and I virgate, and Bradefelde [Broadfield in Bodenham] for I hide, and Sarnesfelde [Sarnesfield] for half a hide. Drew holds (them) of Ralph. On the demesne are 2 ploughs, and

(there are) 2 villeins, and 5 bordars and 3 serfs and 2 bondwomen and 3 oxmen and a fishery which renders 600 eels. It was worth 55s., now 75s. Elward held (it).

The same Ralph holds ETONE [Eaton], and Herbert (holds it) of him. Leuenot held (it). (There are) there  $1\frac{1}{2}$  hides. On the demesne are 2 ploughs, and (there are) 3 villeins and 4 bordars with  $4\frac{1}{2}$  ploughs. It was worth 40s., now (it is worth) 60s.

William de Scohies holds RISEBERIE [Risbury], and Robert (holds it) of him. Edwin held it. (There are) there 2 hides, and on the demesne 2 ploughs, and (there are) I villein and 3 bordars and 4 serfs and a mill worth 4s. The villein gives 10d. It was worth 20s. Now (it is worth) 60s.

The same William holds WAVERTUNE [Wharton], and Bernard (holds it) of him. (There is) there I hide. On the demesne are 2 ploughs and (there is) I villein with half a plough and 4 oxmen. It was and is worth 201.

The same William holds NEWENTONE [Newton], and Bernard (holds it) of him. Ulward held (it). Bruning held (it). (There is) there half a hide. This land is waste.

The same William holds DILGE [Dilwyn Sollers]. Richard (holds it) of him. Elmer held (it). (There is) there I hide, and on the demesne (is) I plough; and (there is) a radknight with I plough. (There are) there I Frenchman and 4 bordars rendering 25d. (There are) there 2 serfs and I bondwoman. It was worth 5s., now 20s.

The same William holds HETFELDE [Hatfield], and Ralph (holds it) of him. Elmer held it. (There is) there half a hide, and on the demesne are I plough and 2 serfs. It was worth 65d. Now 8s.

William son of Norman holds Bradeford 26 [? Broadward]. Leuenod held (it). (There is) there half a hide, and on the demesne (is) I plough, and (there are) 2 villeins and a smith and 5 bordars with 2 ploughs. (There are) there 2 serfs and a mill worth 10s., and a fishery yielding 500 eels. It was worth 20s., now 19s.

Drew son of Ponz holds HANTONE [Hampton],<sup>27</sup> and Stephen holds (it) of him. (There is) I hide, and on the demesne (is) I plough, and (there is) I bordar with I plough, and a mill worth 40d. Edric held (it). It is and was (semper) worth 20s.

<sup>23</sup> In Edvin Ralph.

<sup>24</sup> In Docklow, or in Hope-under-Dinmore.

<sup>&</sup>lt;sup>25</sup> Ford and Sarnesfield were held together of Ralf's successor, Walter de Clifford in 1243 (J. H. R.).

<sup>36</sup> See Introd. 304-5.

<sup>&</sup>lt;sup>37</sup> In Hope-under-Dinmore, or New Hampton in Docklow.

The same Drew holds HAMENES [Hamnish in Kimbolton], and Walter (holds it) of him. (There is) there I hide, and on the demesne (are) 2 ploughs, and (there are) 2 bordars and 4 serfs. It was worth 20s., now 40d.

Durand the sheriff holds MICELTUNE [Middleton], and Bernard (holds it) of him. Elvric held (it). (There are) there  $1\frac{1}{2}$  hides, and on the demesne (are) I plough and (there are) 2 bordars and 2 serfs.

Ilbert holds DILGE [Dilwyn (Sollers)]. Rauechetel held (it). It was worth 205., now (it is worth) 105. (There are) there 2 hides. On the demesne (are) 2 ploughs, and (there are) 8 bordars with 4 ploughs. (There are) there 4 oxmen. It was worth 205. Now (it is worth) 405.

fol. 180b.

The same Ilbert holds LUTELEI [? Luntley].<sup>28</sup> Rauechetel held (it). (There are) there 2 hides, and on the demesne (is) I plough. (There are) there a reeve and 4 bordars and 2 oxmen with 2 ploughs. It was worth 40s. Now (it is worth) 30s.

Grifin the boy (puer) holds ALAC [ ], and Godwin holds it of him. Elward held (it). (There is) there I hide and on the demesne (are) I plough and 2 serfs. It was and is worth 10s. The same Grifin holds half a hide, and Elward holds (it) of him.

There he has I plough with his men. It was waste. Now it is worth 15s.

Lewin Latinarius holds IARPOLE [Yarpole]. Aluric held it. (There is) there I virgate. It was waste. Now there are 2 bordars with I plough, and it is worth 35.

Among them all are 32 hides and they all paid geld T.R.E. and rendered custom at Leof-

minstre.

The same Hugh Asne rendered 5s. What

Osbern (holds) rendered 5 'ores.'

What Urso holds rendered 40d. What the Abbess (holds) 40d. What Roger de Laci (holds) 13s. and 4d. and 25d. as gafol (de gablo).

What Ralph de Mortemer (holds) rendered 50d. Now it renders nothing.

50a. 140w it reliders nothing.

What Ralph de Todeni (holds rendered) 11s. and 10d.

What William de Scohies (holds rendered) 11s. and 10d. and 2 sestiers of honey.

What William son of Norman (holds rendered) 20d.

What Drew son of Ponz (holds rendered) 8s and 8d.

What Durand the sheriff (holds) 5s. What Ilbert (holds) 5s.

29 In Dilwyn.

What Grifin holds 5s. What Lewin (holds) 10d., and they work 2 days in the week (ij dies in ebdomeda operantur).

#### IN DODINTRET HUNDRED

The King holds Merlie [Martley<sup>29</sup>]. Queen Edith held (it). (There are) there 10 hides and 1 virgate of land. On the demesne are 8 ploughs and (there are) 47 villeins and 16 bordars and 2 radmen with 43 ploughs. (There is) there a mill worth 8s., and 2 weirs render 2,500 eels and 5 sticks (stiches).

There the reeve and the bedell have 3 vir-

gates of land and 2 ploughs.

In Wirecestre [Worcester] are 3 houses which

The villeins and bordars pay 12s. for fish and fuel (lignis).30

This manor pays to Hereford 24li. at 20d. to

the ore, and 12s. as a fine (de gersumme).

The church of this manor with the land thereto belonging and with its tithe Earl William gave to St. Mary de Cormeliis [Cormeilles]. Also 2 villeins with 2 virgates of land.

The Earl himself gave to Ralph de Bernai 2 radmen and removed (misit) them from this manor with the land which they held. These men have 2 ploughs.

The same Earl gave to Droard I virgate of

land which he still holds.

#### IN NAISSE HUNDRED

The King holds Feccheham [Feckenham 31]. Five thegns held (it) of Earl Edwin, and could betake themselves whither they would, and had under them 4 knights as free as they themselves were. Among them all were 13 ploughs. (There are) there 10 hides, and on the demesne (are) 6 ploughs; and (there are) 30 villeins and 11 bordars and a reeve and a bedell and a miller and a smith. Among them all they have 18 ploughs. (There are) there 12 serfs and 5 bondwomen; and a radman holds half a hide and 2 parts of half a hide and a croft, and he has 1 plough. (There is) there a mill worth 25.

In Wich [Droitwich] are 4 salt-pits. The wood of this manor is alienated to form part of the king's wood (foris est missa ad silvam regis), also I hide of land which Earl William gave to

Gozelin the hunter.

The tithe and church of this manor with the priest, and 2 virgates of land with 1 villein, Earl William gave to the church of St. Mary.

Walter de Laci gave to a certain Hubert 1 hide of the demesne land. This man has half a plough.

<sup>29</sup> In Worcestershire.

<sup>30</sup> Probably fuel for the furnaces of the king's salt works; See Introd. 295.

<sup>31</sup> In Worcestershire.

The King holds HALOEDE [Holloway 32]. Siward the thegn, kinsman of King Edward, held (it). (There are) there 3 hides, and on the demesne are 3 ploughs, and (there are) 4 villeins and 1 bordar and a reeve and a bedell with 3 ploughs and 6 among the serfs and bondwomen. There is there a park for wild beasts, but it is a lienated from the manor (missum est extra manerium) with all the wood. In Wich [Droitwich] are 4 salt-pits (saline) and a salt-pan (hochus).

In Wirecestre [Worcester] 1 house renders 2 ploughshares and 2 other houses belonging to Feecheham rendered nothing and are alienated

(extra misse sunt).

These two manors render to Hereford 181i. (counting) 20d. to the ore.

#### In GLOWECESTRE SCIRE

The King holds Hanlie [Hanley (Castle <sup>38</sup>)]. (There are) there 4 hides. On the demesne (are) 2 ploughs and (there are) 20 villeins and 17 bordars and a reeve. Among them all they have  $17\frac{1}{2}$  ploughs. There (are) 9 serfs and bondwomen together, and 6 swineherds pay 60 pigs and have 4 ploughs. (There is) a mill there worth 2s. The wood is 5 leagues in length and breadth. It is alienated from (missa est foris) the manor. (There is) a hawk's eyrie there. A forester holds half a virgate of land, and a villein of Baldehalle [ ] renders 2 ores of pence to this manor.

The King holds Forhelmentone [Forthampton 34]. Brictric held (it). (There are) there 9 hides which paid geld for 4 hides. On the demesne are 3 ploughs and (there are) 7 villeins with 5 ploughs. 4 swineherds there with 1 plough pay 35 swine. The wood is 3 leagues in length and breadth. It is within the inclosure of the King's wood, and (there are) there a hawk's eyrie and  $2\frac{1}{2}$  hides, and Ansgot holds 3 virgates of land.

The tithe of this manor with I villein and I

virgate of land St. Mary holds.

#### IN WIRECESTRE SCIRE

The King holds BISELIE [Bushley]. Brictic held it. He bought it from Living, Bishop of Wirecestre [Worcester] for 3 marks of gold, together with a house in Wirecestre city, which renders yearly a silver mark, and together with one wood a league in length and as much in breadth. All this he bought thus and held freely (quiete) so that he did service to no man for it.

In this manor (is) I hide, and on the demesne

32 In Worcestershire.

<sup>84</sup> In Gloucestershire.

are two ploughs and (there are) 4 villeins and 8 bordars and a reeve and a bedell. Among them all they have 4 ploughs. (There are) 8 there among the serfs and bondwomen. And (there are) a cow-herd and a dairymaid (daia). A forester there holds half a virgate of land.

In LAPULE [Pull (Court)] are 3 virgates of land which belonged to (*jacebant in*) LANGEDUNE [Longdon] the manor of Earl Odo. This land Earl William added to (*misit in*) Biselie. (There is) there I plough, and a man of the monks of Lire 35 holds I virgate of land.

Earl William separated (misit extra) from his manors <sup>36</sup> 2 foresters, one from Hanlie and the other from Biselie, for the custody of the woods.

The King holds CHONHELME [Queenhill <sup>37</sup>]. Æthelric (Adelric) brother of Bishop Brictric held (it). (There is) there I hide, and on the demesne (is) I plough and (there are) 7 villeins and 3 bordars with  $4\frac{1}{2}$  ploughs. (There are) there I swineherd and 2 oxinen and a dairywoman. The wood is alienated from (foris missa) the manor. Earl William gave the tithe of this manor to St. Mary of Lire with I villein who holds half a virgate of land.

Herman holds of this manor I villein who has

half a virgate of land.

The King holds Edresfelle [Eldersfield]. Reinbald the Chancellor held it T.R.E. Earl William had it in exchange from him. (There are) there 5 hides. On the demesne are 3 ploughs and (there are) 12 villeins and 13 bordars with 11 ploughs. There (are) 5 serfs and bondwomen together, and 6 oxmen, and a mill worth 2s. The wood (is) 2 leagues in length and as many in breadth. It is separated from (extra missa est) the manor. Anscot a man of the Earl William holds half a virgate of land, and Ulviet 1 hide of free land.

St. Mary has there I villein who holds I virgate of land.

The King holds Suchelie [Suckley]. Earl Edwin held (it). (There are) there 5 hides. On the demesne are 2 ploughs, and (there are) 22 villeins and 24 bordars with 27 ploughs. (There are) there 10 other bordars, poor men, and a mill worth 6s. and a bee-keeper with 12 hives (vasculorum). The wood is 5 leagues in length and breadth, and (there is) a fishery there. In Wirecestre [Worcester] is 1 burgess, but he renders nothing. (There is) a mill there worth 6s. The tithe of this vill with 1 villein and half a virgate of land St. Mary holds.

35 The Norman abbey of La Vieille Lyre.

<sup>33</sup> In spite of the heading this must have been, as it still is, in Worcestershire.

<sup>&</sup>lt;sup>36</sup> 'Misit extra suos m;' possibly this should be read 'misit extra suos manerii,' i.e. 'separated from his men of the manor;' but see V.C.H. Worcs. i, 322.

<sup>37</sup> Ibid. n. 8.

Earl Roger gave to a certain Richard half a virgate of land in absolute freedom (solida libertate).

These 6 manors render to Hereford 50 li. as farm and 25s. as a fine (gersuma).

In Monemude [Monmouth] Castle the King has in demesne 4 ploughs. William son of Baderon has the custody of them (custodit eas). What the King has in this castle (castello) is worth 100s. William has 8 ploughs in demesne there, and there can be more. There are Welshmen there who have 24 ploughs. They pay 33 sestiers of honey and 2s. There are 15 serfs and bondwomen together, and 3 mills worth 20s. The knights of this William have 7 ploughs. What William holds is worth 30li.

The church of this castle and all the tithe with 2 carucates of land St. Florent of Salmur [Saumur] holds.

fol. 181.

In Arcenefelde [Archenfield] the King has 100 men less 4, and they have 73 ploughs with their own men, and give as customary due 41 sestiers of honey, and 20s. for the sheep which they were wont to give, and 10s. for smoke-silver (fumagio), nor do they pay geld nor any other customary due except that they go forth in the King's army if commanded.

If a free man die there, the King has his horse with armour.

From the villein when he dies, the King has

King Grifin and Blein laid waste this land T.R.E. and so it is not known what it was like in that time.

LAGADEMAR [ ] belonged to Arcenefelde T.R.E. and there were there 4 carucates of land. Herman holds this land, and 3 bordars there have 3 oxen.

Gilbert son of Torold holds a manor there in which are 4 freemen with 4 ploughs. It renders 4 sestiers of honey and 16d. as customary due. Of this same Arcenefelde Werestan holds 1 vill, and there he has with his men 6 ploughs. The forest renders half a sestier of honey and 6d.

## THESE VILLS OR LANDS WHICH FOLLOW ARE SITUATED ON THE BORDER OF (in fine) ARCENEFELDE

William son of Norman holds CHIPEETE [Kilpeck]. Cadiand held (it) T.R.E. On the demesne are 3 ploughs and 2 serfs and 4 oxmen, and (there are) 57 men with 19 ploughs, and they render 15 sestiers of honey and 10s., nor do they give any other geld nor do service save (with the) army. It is worth 41i.

The same William holds BAISSAN [Baysham], and Walter (holds it) of him. Merewin held it

of King Edward. In the demesne are 2 ploughs and 14 men with 7 ploughs, and they render 5s. as custom. It is worth 30s.

The same William holds CAPE [(King's) Caple], and Walter (holds it) of him. King Edward held it in demesne. There are there 5 Welshmen who have 5 ploughs and render 5 sestiers of honey and 5 sheep with their lambs and 10d. It is worth 30s. There is I Frenchman there with I plough.

Alvred de Merleberge holds ELWISTONE [Helvistone Wood in Harewood]. Earl Harold held (it). On the demesne are 1½ ploughs, and (there are) a priest and 3 villeins and 4 bordars and 4 serfs with 5 ploughs, and they give 3 sheep. It is worth 30s.

The same Alvred holds Ascis [Ash near Bridstow]. It was waste land T.R.E. There is there I man who has  $1\frac{1}{2}$  ploughs and pays 10s. as ferm.

Roger de Laci holds MAINAURE [? Mainoaks near Huntsham]. Costelin held (it) T.R.E. Now his son holds it of Roger, and there are there 4 ploughs, and it renders 6 sestiers of honey and 10s. There Roger has I Welshman who renders 5s. and a sestier of honey.

The same Roger holds PENEBECDOC [

]. Noui (holds it) of him. The same man held it T.R.E. There are there 4 ploughs. This land renders 6 sestiers of honey and 10s.

Godric Mappesone holds Hulla [? Howl in Walford]. Taldus held (it) T.R.E. On the demesne are 2 ploughs and 4 oxmen and 1 bondwoman. (There are) there 12 villeins and 12 bordars with 11 ploughs, and they render 18 sestiers of honey. (There is) a smith there, and a fishery. It is worth 40s.

#### IN WERMELAU HUNDRED

St. Peter of Gloucester holds Westuode [in Llanwarne <sup>39</sup>]. The 'caput' of this manor King Edward held. (There are) there 6 hides. One of these has Welsh custom and the other English. On the demesne is I plough, and (there are) 2 bordars and 2 oxmen.

This land of St. Peter gives as ferm 30s. Durand gave (it) to the church for the soul of his brother Roger.

<sup>38</sup> 'Hulla' would seem to have included the site of 'castellum Godric,' i.e. Goodrich Castle; see Introd. 280. Mr. J. G. Wood, however, denies that Howl is represented by 'Hulla,' and suggests Hill Court near Ross.

39 Walterus de Gloucestria dedit terram de Westwode in Ierchenffeld in Lawaran'; Hist. Mon. S. Petri Glouc. (Rolls Ser.), i, 123. Part of this manor appears

to have formed the present Dewchurch.

Of this manor Roger de Laci holds a part and Odo (holds it) of him. Earl William gave it to him. On the demesne are 2 ploughs, and (there are) 9 bordars with 2 ploughs and 2 serfs and 2 oxmen. (There is) there I Frenchman with 2 bordars having 2 ploughs. It is worth 31i.

Ralph de Saucey (Salceit) holds a part of the same manor and has land for 2 ploughs. One plough is there with 2 oxmen; and one Welshman who has half a plough and renders I sestier of honey. It is worth 20s.

Ralph de Todeni holds Westeude [? Dewsall] 40 and William and Ilbert (hold it) of him. Ulsac held (it). (There is) I hide there, and on the demesne (are) 2 ploughs and a serf, and 4 bordars with 2 ploughs. It is worth 30s.

The church of this manor and the priest and land for I plough St. Mary of Lyre holds.

The King has in Herefordscire 9 manors which are waste. (They are assessed) as 19 hides.

For the forests, which he holds, William son of Norman pays 15 li. to the King.

#### IN HEZETRE HUNDRED

The King holds Berchelincope [Burling-jobb]. Sol [ ] held (it) T.R.E. (There are) 3 hides there. They were and are waste. The land is (for) 4 ploughs.

The King holds RADDRENOUE [Old Radnor]. Earl Harold held it. (There are) there 15 hides. They are and were waste. There is land (for) 30 ploughs.

Hugh Asne says that Earl William gave this land to him, when he gave him the land of Turchil his predecessor (antecessor).

#### In Elsedune Hundred

The King holds WITENIE [Whitney]. Æl-ward held (it) T.R.E., and could betake himself wherever he wished. Half a hide pays geld there. It was and is waste.

Earl Harold held MATEURDIN [ ]. The manor pays geld as 2 hides. Part of this land the King has, and it is and was waste.

The same Harold held HERDESLEGE [Eardisley]. (There are)  $2\frac{1}{2}$  hides there. (They are) waste.

The same Harold held CICUURDINE [Chickward near Almeley]. (There are) there I hide and 3 virgates of waste land. In ULFELMESTUNE [? Welson near Eardisley] 2 hides. In STIUINGE-

<sup>40</sup> The church of Dewsall subsequently belonged to Lyre; Feud. Aids, ii, 406.

41 Co. Radnor.

URDIN [? Strangward] 42 I hide. In HANTINE-TUNE [? Huntington] 3 hides. In BURARDE-STUNE [Burton] 43 I hide. In HERGESTH [Hergest] I hide. In BRUDEFORD [? Breadward, in Kington] 2 hides. In CHINGTUNE [Kington] 2 hides. In RUISCOPE [Riscob] 4 hides. These lands Earl Harold held. Now the King has (them). They are waste.

In Hergest [Hergest] 3 hides. In Beuretune [Burton] 2 hides. In Ruiscope [Riscob] I hide. These three manors King Edward held and they paid geld. Now the King has (them) and they are waste.

#### IN ELSEDUNE HUNDRED

In Wennetune [Woonton] are 1½ hides paying geld. Elgar and Alwin held (it) as 2 manors and could betake themselves where they would. Ralph de Bernai, when he was sheriff, added these two estates (terras) to the ferm of Leofminstre [Leominster] (misit has 2 terras iniuste ad firmam de Leofminstre). There are there 1½ ploughs; naught else. T.R.E. it was waste. Now it pays 62d. to the King's ferm.

#### IN PLEGELIET HUNDRED

In RUEDENE [Rowden, in Edvin Ralph] is I hide paying geld. Grim held it as a manor and could betake himself whither he would. There Grimchetel has I plough and I bordar and I oxman. It was worth 125. Now (it pays) 105. to the ferm.

#### IN BREMESESE HUNDRED

In NIWARE [? Huntsham]  $^{43a}$  are  $2\frac{1}{2}$  hides, which used to come and do service, but Roger de Pistes in the time of Earl William made them part of Gloucestershire.

In Brocote [ ] are  $2\frac{1}{2}$  hides. Alvric and Elward and Bercsi held (them) as 2 manors. They were waste and up to the present (adhuc) are in the King's wood.

There Brictric held one manor as I hide, and Earl Godwin held (it, namely) STANTUN [Stanton, co. Glouc.], one manor, as I hide. They were waste, and up to the present are in the King's wood.

<sup>42</sup> Marked on Saxton's and Speed's maps near Knill; now Strongwood.

43 'Bourton cum membris in va'le de Radenore'; Feud. Aids, ii, 377.

<sup>43a</sup> So identified by Mr. J. G. Wood, who deems the land to be part of Huntsham adjoining New Weir, which, he observes, was long debatable land between the two counties.

In GETUNE [? Gayton]<sup>43b</sup> Wetman held I hide geldable, and could betake himself whither he pleased. Hugh held it at ferm of Humphrey the chamberlain, and paid 30s. and still pays the same

This land was 'tainland' T.R.E., but was afterwards changed into 'Reveland,' and therefore the King's commissioners (legati) say that the said land and the revenue (census) issuing from it is stealthily taken away from the King.

fol. 181b.

## II.—LAND OF THE CHURCH OF HEREFORD

In HEREFORD PORT T.R.E. Bishop Walter had 100 burgages (masurae) less 2. They who dwelt in them paid 100s. less 6s. The same Bishop also had a moneyer. When Robert came into the bishopric he found 60 burgages (masurae). They who dwelt in them paid 43s. and 4d.

Now it is appraised at 50s.

Bishop Robert found 40 hides waste when he came to the bishopric, and they are so now.

Bishop Walter had one manor, Dodelegie [Didley, in St. Devereux], which is assessed at 40s., and next it lies another manor, STANE [ ], which by rights belongs to the bishopric. In these 2 manors are 10 hides. All these hides are waste, and were waste, save I hide in Dodelige.

Of these hides some are in the jurisdiction of Alvred's castle at Ewias [Ewyas Harold] (in castellaria Aluredi Ewias), and the rest in the King's inclosure (defensio).

These hides paid geld with Bishop Walter T.R.E. In Tedesthorne [Tedstone]  $2\frac{1}{2}$  hides. In Salberga [ ] half a hide. In Ardeshope [Yarsop] 3 virgates of land. In Ach [ ] I hide and I virgate.

## THESE LANDS BELOW-WRITTEN BELONG TO THE CANONS OF HEREFORD

#### IN STRADFORD HUNDRED

In Lulleham [Lulham, in Eaton Bishop] are 8 hides geldable. On the demesne is 1 plough, and (there are) 11 villeins and 5 bordars with 13 ploughs. (There is) 1 bondwoman there, and 3 acres of meadow, and there could be 1 more plough on the demesne.

Of this land 2 clerks hold 2 hides and 3 virgates, and 1 knight 1 hide. These have on the

demesne 2 ploughs, and (there are) 13 villeins and 2 bordars with 8 ploughs. T.R.E. it was waste. Now it is worth 10/i.

In PRESTETUNE [Preston on Wye] are 6 hides geldable. On the demesne is I plough, and (there are) 9 villeins and 8 bordars with  $8\frac{1}{2}$  ploughs. (There is) a mill there worth 2s., wood I league in length and a half in breadth. There could be I more plough on the demesne. Of this land 2 clerks hold  $2\frac{1}{2}$  hides, and I hide is waste. They have 7 villeins with 3 ploughs. The villeins have more ploughs than the land needs (plus habent carucas quam arabilem terram). T.R.E. it was waste, now 100s.

In TIBRINTINTUNE [Tyberton] are 6 hides geldable. (There is) I plough on the demesne there, and (there are) 16 villeins and 6 bordars with 9 ploughs. There could be I more plough on the demesne. (There are) 3 acres of meadow there. The wood (is) I league long and half a league wide. T.R.E. it was waste. Now it is worth 3/i.

In the same hundred I radman holds I hide which belongs to the Canons' barton [Bertune], and pays geld. There is I plough on the demesne there. It is worth 5s.

In ETUNE [Eaton Bishop] are 5 hides. On the demesne are 2 ploughs, and (there are) 12 villeins and 6 bordars with 7 ploughs. (There are) 2 serfs there, and a mill worth 5s., and 12 acres of meadow. The wood (is) 1 league long and 2 in width. It is worth 4li.

This manor Earl Harold held, and Earl William gave it to Bishop Walter for land in which is now the market, and for 3 hides of LIDENEGIE [Lydney].44

In MEDELAGIE [Madley] are 3 hides. It belongs to the Bishop's barton [Bertune]. On the demesne is 1 plough, and (there are) 6 villeins with 4 ploughs. The wood there (is) half a league in length and one in breadth. This wood is within the King's inclosure.

In the same hundred 2 freemen hold 4 hides, and they belong to the Bishop's barton. On the demesne they have  $1\frac{1}{2}$  ploughs, and (there are) 6 bordars with 2 ploughs. The whole manor is worth 100s. The knights' land (is worth) 15s. 8d.

#### IN DUNRE HUNDRED

In Bertune [Burton in Holme Lacy] are 10 hides geldable. On the demesne is 1 plough; and (there are) 1 villein and 2 bordars with 1 plough. (There is) 1 bondwoman there; and 4 acres of meadow. The wood of this manor the King has in his demesne.

43b Near Ross (J.G.W.).

44 In Gloucestershire (J.H.R.).

Of this land 4 clerks hold  $4\frac{1}{2}$  hides, and 4 knights hold 5 hides. These have in demesne  $7\frac{1}{2}$  ploughs, and (there are) 22 villeins and 12 bordars with  $10\frac{1}{2}$  ploughs. Half a hide is waste. On the demesne could be 2 more ploughs than there are.

T.R.E. it was waste. Now it is worth 7li.

In HAMME [Holme Lacy] are 6 hides paying geld. On the demesne are 2 ploughs, and 16 villeins, and a priest, and a reeve (prepositus), and a Frenchman and 4 buri. Among them all they have 20½ ploughs. (There are) there I serf and 2 bondwomen, and 10 acres of meadow. The wood (is) half a league long and just as wide.

To this manor belongs a church, and it is called LADGUERN [Llanwarne?]. There are 3 ploughs there, but the land of this church does not pay geld. A priest renders 2s. thence.

This land 45 Roger de Laci holds under the

Bishop.

This manor Earl Harold held unjustly, because it is for the sustenance of the canons. King William restored it to Bishop Walter.

T.R.E. it was worth 9li. Now 8li.

#### In Tragetreu Hundred

In HOPE [Woolhope]<sup>46</sup> are 16 hides paying geld. On the demesne is 1 plough, and there could be another; and (there are) 35 villeins and 7 bordars with 35 ploughs. (There are) 8 acres of meadow there. The wood is 3 furlongs long and 1 wide.

Of this land 2 clerks hold 1 hide and 1 virgate, and 1 knight  $1\frac{1}{2}$  hides. On the demesne is 1 plough, and 5 villeins and 4 bordars with 4 ploughs. The knight pays 55 to the canons

.of St. Æthelbert (Alberti).

T.R.E. it was worth 16li., and now likewise.

In CAPEL [(How) Caple] are 5 hides paying geld. On the demesne are 3 ploughs, and 9 villeins and 1 bordar with 8 ploughs. (There are) there 1 serf and 2 bondwomen. Also a mill worth 3s.; and 8 acres of meadow.

T.R.E. it was worth 40s., and afterwards and

now 60s.

In CAPLEFORE [Caple] <sup>47</sup> are 5 English hides paying geld, and 3 Welsh hides rendering 6s. to the canons yearly. In the 5 hides is 1 plough in demesne, and (there are) 8 villeins with 7 ploughs, and 4 acres of meadow.

T.R.E. it was worth 70s., and afterwards and

now the same.

45 i.e. Holme Lacy.

46 In 1243 'Wuilvene Hope' was returned as 15 hides and as held by the Canons (J.H.R.).
47 ? Foraway Farm in How Caple (J.H.R.).

IN THORNLAU HUNDRED

In PRESTETUNE [Preston Wynne] are 4 hides paying geld.  $1\frac{1}{2}$  virgates are waste. On the demesne (are) 4 ploughs, and 5 villeins with  $4\frac{1}{2}$  ploughs. (There is) 1 bondwoman there, and 20 acres of meadow.

T.R.E. it was worth 65s. Now 5s. less.

In Widingtune [Withington] are 8 hides paying geld. On the demesne is 1 plough; and 4 villeins and 2 bordars with 3 ploughs. (There are) 2 acres of meadow there, and a mill worth 2s. Of this manor 3 clerks hold 4 hides, and have in demesne 3 ploughs, and (there are) 6 villeins and 4 bordars with 6 ploughs, and 1 serf and 1 bondwoman, and 7 acres of meadow.

Of this same manor the nuns of Hereford hold 2 hides, and have there I plough and 3 villeins with  $2\frac{1}{2}$  ploughs, and I4 acres of meadow.

All things included (inter totum) it is and was

always worth 6li. and 5s.

In Ullingwice [Ullingswick] are 6 hides. Out of these, 3 hides pay geld, and 3 are waste. On the demesne are 3 ploughs, and 8 villeins, and 4 bordars with  $6\frac{1}{2}$  ploughs. (There are) 2 serfs there; and part of a salt-pit in Wich [Droitwich].

T.R.E. and afterwards as now it was worth

of him.

#### IN WIMUNDESTREU HUNDRED

In DUNNINCTUNE [Donnington] is I hide paying geld. On the demesne is I plough; and (there are) 6 villeins and 6 bordars with 7 ploughs. (There is) I bondwoman there; and 8 acres of meadow.

T.R.E. and afterwards as now it was worth 25s. One of the Bishop's clerks holds (it) of

him.

#### IN RADENELAU HUNDRED

In MORTUNE [Moreton Jeffreys] are 4 hides paying geld. On the demesne are 3 ploughs, and (there are) 2 villeins and I bordar with 2 ploughs. (There are) 4 serfs there and 6 bondwomen, and 7 acres of meadow. And I salt-pit in Wich (Droitwich).

T.R.E. and afterwards as now it was worth

1001.

In Frome [Bishop's Frome] are 10 hides paying geld. Of these 4 hides lie in Plegel-Gete Hundred. On the demesne is 1 plough, and ('here are) 22 villeins and 4 bordars with 21 ploughs. (There is) 1 serf there; and a mill worth 8s., and 6 acres of meadow. The wood renders nothing.

Of this manor 2 knights hold 3 hides, and the Bishop's chaplain I hide, and the priest of the vill I virgate of land. These men have 6 ploughs and 5 villeins and I bordar with fol. 182.

4 ploughs and 3 serfs. The reeve (prepositus) of the vill has 1 mill worth 32d. T.R.E. and afterwards as now it was worth 10li. and 15s.

#### IN BROMESESCE HUNDRED

In WIBOLDINGTUNE [Whittington] 48 are 3 hides which by rights belong to the bishopric. They are waste and were waste. There is a fishery there.

In Walecford [Walford] are 7 hides paying geld. On the demesne is 1 plough, and there could be 2 more. (There are) there 6 villeins and 4 bordars with 5 ploughs. (There are) there 14 acres of meadow and 3 hayes (haiae). The villeins pay 10s. for the waste land.

In Rosse [Ross] are 7 hides paying geld. On the demesne is 1 plough, and there could be another. (There are) there 18 villeins and 6 bordars and a priest with 23 ploughs. (There are) there 3 serfs and a mill worth 6s. and 8d. and 16 acres of meadow. The wood is in the King's forest (in defensu regis). The villeins pay 18s. as revenue (de censu).

In UPTUNE [Upton Bishop] are 7 hides geldable. On the demesne are 2 ploughs, and 18 villeins and 11 bordars and 2 husbandmen and a priest. Among them all they have  $28\frac{1}{2}$  ploughs. (There are) there 5 serfs and 4 acres of meadow and a grove. The wood renders nothing. The villeins render 20s. according to custom.

These three manors, Walforde, Rosse, and Uptune, are valued at 14li.

#### In Wimundestreu Hundred

In Liedeberge [Ledbury] are 5 hides. On the demesne are 2 ploughs and 10 villeins and 1 'burus' with 11 ploughs. (There are) there a mill worth 32d. and 7 acres of meadow. The wood (is) half a league long and half broad, and renders nothing.

Of this manor a priest holds  $2\frac{1}{2}$  hides and 2 knights (hold) I hide, and a radman 3 virgates. They have on the demesne 10 ploughs and (there are) 7 bordars with other men having 8 ploughs. (There is) part of a salt-pit in Wich [Droitwich].

T.R.E. it was worth 10*li.*, and afterwards and now 8*li*. What the priest holds is worth 50s.

Of this manor Earl Harold held I hide unjustly (namely) HASLES [Hazle], and Godric (held

<sup>48</sup> Opposite Doward on the Wye (J.G.W.).

it) of him. King William restored (it) to Bishop Walter. On the demesne are 3 ploughs and (there are) 4 villeins with 3 ploughs, and a mill worth 25., and 7 acres of meadow.

T.R.E. and afterwards as now it was worth

In ASTENOFRE [Eastnor] are 4 hides geldable. In the demesne are 3 ploughs and (there are) 8 villeins and 7 bordars with 11 ploughs. (There are) there 6 acres of meadow and 2 hayes, and woodland which renders nothing, and part of a salt-pit in Wich [Droitwich]. The wood is 4 furlongs in length, and 2 in breadth.

Of this (manor) I knight holds half a hide, and a mason (cementarius) half a hide and half a virgate. On the demesne (is) I plough, and (there are) 2 bordars with certain other men; (there are) 3 ploughs.

T.R.E. and afterwards as now it was worth 4li.

In Bageberge [? Backbury]<sup>48a</sup> are 5 hides geldable. On the demesne are 2 ploughs and (there are) 16 villeins and 13 bordars with 20 ploughs. (There are) there a mill worth 32d. and 8 acres of meadow, and a wood which renders nothing, and part of a salt-pit in Wich [Droitwich].

Of this manor 2 knights hold 1 hide and 3 virgates, and 2 radmen (hold)  $3\frac{1}{2}$  virgates. These have on the demesne 4 ploughs, and their men (have) 6 ploughs and a mill worth 16d.

T.R.E. and afterwards as now it was worth 81i. less 5s.

In Boseberge [Bosbury] are 6 hides geldable. On the demesne (are) 2 ploughs and 17 villeins and 16 bordars and a husbandman with 22 ploughs. (There are) there 2 serfs, and a mill worth 30d. and 8 acres of meadow, and a wood which renders nothing.

A priest holds I hide and has I plough. T.R.E. and afterwards as now it was worth 6li.

In Credelaie [Cradley] are 12 hides. One of these is waste. The others pay geld. On the demesne are 3 ploughs and (there are) 23 villeins, and 3 bordars, and 6 'buri' with 28 ploughs. (There are) there 5 serfs, and a mill worth 32d. and 7 acres of meadow. The wood (is) one league long and half a league broad, and renders nothing. There is I have (baia) there.

Of this manor a priest holds  $1\frac{1}{2}$  virgates, and the reeve (holds) half a hide, and 2 knights 1 hide and  $1\frac{1}{2}$  virgates, and 1 radman half a hide. They have in demesne 5 ploughs and their bordars (have) 6 ploughs.

T.R.E. and afterwards as now it was worth toli.

In COLEWELLE [Colwall] are 3 hides geldable, and they belong to Credelaie. On the demesne

48a Nr. Mordiford (J.G.W.).

are 2 ploughs, and 8 villeins and 8 bordars with 10 ploughs. (There are) there 6 serfs, and a mill worth 16d. and 8 acres of meadow, and a haye (baia).

Of this manor I radman holds half a hide,

and he has I plough there.

T.R.E. and afterwards as now it was worth

This manor Earl Harold held unjustly, and Turmod (held it) of him. King William restored (it) to Bishop Walter.

In Cotingtune [Coddington] are 3 hides. Half a hide is waste. The remaining hides pay geld. On the demesne are 2 ploughs, and (there are) 6 villeins and a bordar with 6 ploughs. One radman there holds I hide and has I plough. (There are) there 3 acres of meadow. The wood renders nothing. To this manor belong 3 houses (masure) in Wirecestre. They pay 30d.

T.R.E. and after as now it was worth 45s. This manor Earl Harold held unjustly. King

William restored (it) to Bishop Walter.

#### In Cutethorn Hundred

In Hantune [Hampton Bishop] are 4 hides which pay geld. On the demesne are 2 ploughs, and (there are) 6 villeins and 5 bordars with 7 ploughs. (There are) there 2 bondwomen and  $2\frac{1}{2}$  mills worth 35s. and 28 acres of meadow.

Of this manor 1 knight holds 3 virgates, and a radman 1 virgate, and they have in demesne 3

ploughs.

T.R.E. and after as now it was worth 100s. This manor Earl Harold held unjustly. King William restored (it) to Bishop Walter.

In Topeslage [Tupsley] is I hide geldable. On the demesne are 2 ploughs, and (there are) 4 villeins and 6 bordars with 2 ploughs. (There is) there a mill worth 20s., and 20 acres of meadow. A salt-pit at Wish [Droitwich] renders 16 mitts of salt. One Frenchman holds half this hide (istam bidam dimid), and has I plough.

T.R.E. and afterwards it was worth 40s.

Now (it is worth) 5s. more.

In Scelwiche [Shelwick] are 2 hides geldable. On the demesne (is) I plough, and (there are) 6 villeins and 6 bordars with 4 ploughs. (There are) there I bondwoman, and a mill worth 30s. and 18 acres of meadow.

T.R.E. and after it was worth 60s. Now (it

is worth) 100s.

In Scelwiche [Shelwick] are 3 hides geldable. On the demesne is 1 plough, and (there are) 5 villeins with 3 ploughs, and 1 Frenchman there holds half a hide and has 1 plough with 2 bordars. (There are) there 8 acres of meadow.

T.R.E. and afterwards it was worth 30s. Now (it is worth) 5s. more.

In Sucwessen [Sugwas] are 2 hides geldable. On the demesne is 1 plough. One knight holds in farm 1 of these hides for 8s.

T.R.E. and afterwards as now it was worth

235.

This manor Earl Harold held unjustly. King William restored (it) to Bishop Walter.

In WERHAM [Warham] are  $2\frac{1}{2}$  hides geldable. (There are) there 8 villeins with 4 ploughs. It is, and was, worth 30s.

In PEUNE [Canon Pyon] are 12 hides geldable. On the demesne is 1 plough, and (there are) 15 villeins and 10 bordars with 16 ploughs. (There are) there 1 bedell and 2 bondwomen and 2 acres of meadow.

Of the land of this manor 3 clerks of the bishop hold  $4\frac{1}{2}$  hides, and 3 knights hold  $3\frac{1}{2}$  hides. These have in demesne 6 ploughs, and (there are) 14 villeins and 9 bordars with 6 ploughs. They have there 4 serfs, and a mill worth 32d.

T.R.E. and afterwards as now it was worth

IOS.

In Huntenetune [Huntington] are 10 hides. Of these 4 are waste, and the others pay geld. On the demesne is 1 plough, and (there are) 5 villeins and 4 bordars with 7 ploughs. (There are) there 5 acres of meadow, and in addition there could be 1 plough more on the demesne.

Of this manor a clerk holds 2 hides, and a

knight 3 hides.

On the demesne they have 2 ploughs, and (there are) 3 bordars and a smith with 1 plough.

T.R.E. and after as now it was worth 4li.

In HOLEMERE [Holmer] is I hide geldable. There are there 4 villeins with 4 ploughs. It is, and was, worth 10s.

In Mortune [Moreton (on Lugg)] are 4 hides geldable. Three clerks hold (them) of the Bishop, and have 3 ploughs in demesne, and 8 villeins and 4 bordars with  $2\frac{1}{2}$  ploughs. (There are) there 3 serfs, and 2 bondwomen, and a mill worth 4s. and 20 acres of meadow.

T.R.E. it was worth 4li., and afterwards and

now 3li.

fol. 182b.

In Pipe [Pipe] is I hide geldable. (There are) there I plough and 16 acres of meadow. It is worth 5s.

In Leode [Lyde] are 2 hides geldable. (There are) there  $1\frac{1}{2}$  ploughs on the demesne, and (there are) 3 villeins with  $3\frac{1}{2}$  ploughs. (There is) I bondwoman there. In addition

there might be on the demesne half a plough. (There are) 8 acres of meadow there.

It is, and was, worth 40s. A knight holds it of the Bishop.

#### IN STAPEL HUNDRED

In NORTUNE [Norton Canon] are 6 hides On the demesne is I plough, and (there are) 8 villeins and 3 bordars with  $8\frac{1}{2}$ (There are) there I bondwoman and I acre of meadow, and wood rendering 2s.

T.R.E. and after it was worth 60s.; now

In Malveshille [? Mansell 49] are 5 hides geldable. On the demesne is I plough and another which is idle (ociosa), and 9 villeins and a reeve and 4 bordars with  $6\frac{1}{2}$  ploughs. (There are) there I bondwoman and 6 acres of meadow.

T.R.E. it was worth 3li., and afterwards, and

now 4li.

In Wrmesleu [Wormsley] half a hide is geldable. One knight holds (it) of the Bishop and has 2 villeins with 1 plough.

T.R.E. and afterwards as now it was worth

In Bricge [Bridge (Sollers)] are 5 hides geldable. A knight holds (them) of the Bishop. On the demesne are 2 ploughs, and (there are) 4 villeins with 2 ploughs. Another knight holds I hide there, and has I plough and 4 bordars with I plough.

(There are) there a serf and a bondwoman. T.R.E. it was worth 50s. Now 60s.

#### IN PLEGELGET HUNDRED

In Bromgerbe [Bromyard] are 30 hides. Of these 3 hides are and were waste, the others pay geld. On the demesne are 5 ploughs, and (there are) 42 villeins and 9 bordars with 39 ploughs. (There are) there 6 serfs, and a mill worth 10s. There is a wood and 12 acres of meadow. there which renders nothing.

Of this manor 3 knights of the Bishop hold o hides and I virgate. Two priests (hold) I hide, and a chaplain I hide and 3 virgates, and a

reeve I hide, and a radman I hide.

On the demesne they have II ploughs and their men have 20 ploughs. One of them has 2 serfs and 3 acres of meadow.

T.R.E. and afterwards and now the whole manor was and is worth 45 li. and 10s.

In Collintune [Collington] are 3 hides paying geld. On the demesne are 3 ploughs and 2 villeins and 4 bordars with  $2\frac{1}{2}$  ploughs. (There are) 2 acres of meadow there.

T.R.E. and afterwards as now it was worth

305.

49 Formerly 'Malmeshulle.'

This manor and the above-written BRIGGE (sic) Earl Harold held unjustly. King William restored them to Bishop Walter.

#### IN WLFAGIE HUNDRED

In LUTELONHEREFORD [Little Hereford] are 7 hides. Three of these are waste; the others pay geld. On the demesne are 3 ploughs, and (there are) 17 villeins and 3 bordars with 11 ploughs. (There are) 2 bondwomen there, and a mill worth 6s. and 8d. There are there 4 mills a moiety of which belongs by rights to the said manor. (There are) 5 acres of meadow there. The wood (is) 2 furlongs long and half a furlong broad and renders nothing.

Of this manor a priest holds half a hide, and a radman half a hide. They have 3 ploughs.

T.R.E. it was worth 100s., and afterwards and now 4li.

In WINETUNE [Winnington] is half a hide. A radman holds it, and has there I plough and 2 villeins. It is, and was, worth 5s.

#### IN CUTETHORN HUNDRED

In CRADENHILLE [Credenhill] are 2 hides. Two villeins there with 1 plough render 5s. as farm (de censu). It is worth 20s.

#### In Stradel Hundred

In More [Moore near Hereford] is I hide which is worth 5s.

The same canons have 4 hides. Three clerks there have 3 villeins with 4 ploughs. It is

The same Bishop Walter had I hide of Welsh land laid waste T.R.E.

There are there 2 ploughs on the demesne, and 3 villeins and 6 bordars and 2 other men with 6 ploughs. It is worth 40s.

Of this land the greater part is within the

King's forest.

About the gate of HEREFORD Bishop Walter had lands T.R.E. which did not pay geld.

There Bishop Robert has 4 ploughs in demesne and 2 villeins and 5 husbandmen with 5½ ploughs. It was worth 40s.; now it is worth 4li. Of this land 2 chaplains of the Bishop hold a certain part, and a knight (holds) I hide. They have in demesne 6 ploughs and a villein and 6 bordars and 2 serfs and 3 bondwomen. In all it is worth 67s.

In all there are in the bishopric 300 hides, although for 33 hides the Bishop's men give no account.

#### IN GREITREWES HUNDRED

Saint Peter of Hereford holds Frome [Frome in Mordiford]. Walter de Laci gave (it) to the church with the consent of King William.

There is I hide and I virgate geldable. Edwi Cilt held (it) and could betake himself wherever he would. On the demesne is I plough; and (there are) 3 villeins and 3 bordars with 2 ploughs. (There are) 7 serfs there.

It was worth 15s. Now (it is worth) 30s.

## III. LAND OF THE CHURCH OF CORMEILLES

#### IN BREMESESE HUNDRED

The church of St. Mary of Cormeilles holds 2 hides in Chingestune [Kingstone] 50 and pays geld, and those who dwell there work (operantur) in Gloucestershire, but come to this hundred for pleas to do and receive justice.

#### IV. CHURCH OF LYRE

The church of St. Mary of Lyre has half a hide in Merchelai [(? Little) Marcle].

## V. LAND OF ST. PETER OF GLOUCESTER

#### IN BREMESSE HUNDRED

The church of St. Peter of Gloucester holds Bruntune [Brampton Abbots]. (There are) 2 hides there. One pays geld, the other is free from geld and from every customary due.

In this free hide are 3 ploughs on the demesne, and (there are) 5 villeins and 5 bordars with 5 ploughs. (There are) 16 serfs there. It is worth 4li.

On the other hide is I villein and I bordar with I plough, and a mill worth 8s. It is worth 10s.

The same church holds Lecce [? Leye or Lea] of the gift of Walter de Laci. Ansgot held (it) T.R.E. There is I hide geldable. He could betake himself whither he would. On the demesne is I plough; and (there are) 2 serfs and I bordar. It is, and was, worth Ios. There can be I more plough.

#### VI. LAND OF ST. GUTHLAC

#### IN BREMESSE HUNDRED

The church of St. Guthlac holds Bruntune [Brampton]. There is 1 hide geldable. The land is for 2 ploughs. It was, and is, waste. However it renders 5s.

The same church holds Hinetune [Hinton].<sup>52</sup> There is I hide geldable. On the demesne is I plough; and (there are) 4 villeins with 2½

In Weston-under-Penyard; see Introd. 283.
 In Madley.
 Peterchurch.

ploughs. (There are) there 3 serfs and 4 cottars, and a mill worth 4s. It is worth 25s.

#### IN TORNLAWES HUNDRED

The same church holds TINGEHALLE [Thing-hill].<sup>53</sup> There is I hide geldable. On the demesne are 2 ploughs, and (there are) 4 villeins and I bordar with 2 ploughs. (There are) 5 serfs there. It is, and was, worth 30s.

The same church holds HOPE [? Hope-under-Dinmore]. (There are) 2 hides there. One pays geld, the other does not. On the demesne are 2 ploughs and (there are) 1 villein and 2 bordars with 1½ ploughs. (There are) 3 serfs there. It is worth 30s.

#### IN ULFEGIE HUNDRED

St. Guthlac had I hide (namely) Westelet

The same church holds Feltone [Felton]. There are 3 hides which pay geld except (praeter) half a hide. On the demesne are 3 ploughs and 5 serfs and 1 bordar. (There is) 1 Frenchman there with 1 plough rendering 6s. It was worth 60s.; now 40s.

#### IN STRATFORD HUNDRED

The same church holds Moches [Moccas]. There 2 hides pay geld. There are there 6 villeins and 3 bordars with 4 ploughs. (There is) I Frenchman there. It is worth 30s.

#### In Elsedune Hundred

The same church holds ELMELIE [Almeley] and Roger de Laci of it. There 4 hides pay geld. The land is for 8 ploughs. The men of another (alterius) vill labour (laborant) in this vill and render 37s. and 8d.

The same church holds MIDEURDE [ ] and Drew of it. There is I hide geldable. On the demesne is I plough, and 2 oxmen, and (there are) 3 bordars with I plough. It is worth IOS.

The same church holds WITENIE [Whitney], and Harold of it. There are 4 hides geldable. They are, and were, waste, but they render 6s.

fol. 183.

## VII. THE LAND OF NIGEL THE PHYSICIAN (Medicus)

#### In GREITREWES HUNDRED

Of the land of St. Guthlac, Nigel the Physician holds Bertoldestreu [Bartestree (Chapel)]. Leflet held (it). (There are) 2 hides there; one of them pays geld as the county witnesses. On

53 In Withington.

the demesne are 3 ploughs and 3 serfs, and (there is) a reeve (prepositus) with 1 plough. (There is) meadow there [blank in MS.]. The land is for 3 ploughs.

It was worth 60s. Now 50s.

To this manor belongs a berwick. Lefled held it. (There are) 2 hides there. One of them pays geld as the county witnesses. There Nigel has in demesne 2 ploughs and 2 serfs and 1 bordar and a radman with land without a plough. It is, and was, worth 40s.

#### IN TORNELAUS HUNDRED

The same Nigel holds BOLELEI [Bowley], and Ralf of him. Leflet held (it). (There is) there I hide free from geld and from the King's service. On the demesne are 2 ploughs and 2 oxmen. There is land for 4 ploughs. It was worth 25s. Now 20s.

The same Nigel holds SUTUNE [Sutton]. Leflet held (it). There are 2 hides geldable. On the demesne is 1 plough and 2 oxmen; and (there are) 4 bordars and 2 cottars with 1 plough, and a Frenchman with 1 plough.

There (is) meadow for the oxen, and a mill which Hugh Asne holds of Nigel renders 8s.

and 8 sticks of eels.

T.R.E. it was worth 60s., and afterwards 30s.; now 50s.

This manor Hugh held in the time of William.

The same Nigel held SUTUNE [Sutton]. Spirites the priest held (it). There is I hide geldable. The land is for 2 ploughs. They are on the demesne, and (there are) 4 serfs and I bordar, and a mill worth 10s. and 7 sticks of eels, and meadow for the oxen only. It is, and was, worth 30s.

The same Nigel holds MAGE [Maund]. Leflet held (it) of St. Guthlac. There are 2 hides geldable. There are there 7 villeins with 5 ploughs. It was worth 40s. Now 30s.

The same Nigel holds TINGEHELE [Thinghill], and Geoffrey (Goisfridus) of him. Spirtes held (it). There is I hide not geldable. On the demesne are 2 ploughs and 4 serfs. It is, and was, worth 20s.

#### IN DUNRE HUNDRED

The same Nigel holds Moches [Moccas], and Ansfrid of him. Ernuin held (it) of St. Guthlac. There is I hide there, and on the demesne (is) I plough. It is worth 15s.

#### IN PLEGELIET HUNDRED

The same Nigel holds COLGRE [? Cold Green in Bosbury]. Spirtes held (it). There (are) 3 hides geldable. On the demesne are 3 ploughs

and 7 serfs, and there are 2 bordars and 1 freeman with 1 plough and 2 bordars. It was worth 50s., now 40s.

The same Nigel holds AWENEBURI [Avenbury]. Spirtes held (it). There are 6 hides geldable. On the demesne are 3 ploughs and 4 serfs, and (there are) 22 villeins and 2 priests and 1 bordar with 12 ploughs. A mill there renders nothing. It is, and was, worth 100s.

#### VIII. LAND OF RALF DE TODENI

Ralf de Todeni holds the castle (castellum) of CLIFORD [Clifford].

Earl William erected (fecit) it on waste land which Bruning held T.R.E. There Ralf has land for 3 ploughs, but there is only 1 plough. This castle is (part) of the kingdom of England (est de regno anglie); it does not belong to (subjacet) any hundred nor (is it) liable to (in) customary dues.

Gilbert the sheriff holds it at farm, with (et) the borough and the plough (car'). For the whole he renders 60s.

In the jurisdiction of this castle (in hac castel-laria) Roger holds land for 4 ploughs, and Gilbert for 12 ploughs, and Drew for 5 ploughs, and Herbert for 2 ploughs. These have on the demesne 9 ploughs, and (they have) 16 burgesses and 13 bordars, and 5 Welshmen, and 6 serfs, and 4 bondwomen, and a mill rendering 3 muids of grain (modios annone), and 4 oxmen are there. The men have 3 ploughs.

Among them all what they have is worth 8/i.

and 5s.

And these and whatever other men have anything there hold of Ralf.

#### IN HESETRE HUNDRED

The same Ralf holds Leine [Monkland], and St. Peter of Castellion [the abbey of Conches] <sup>54</sup> of him. Elmar and Ulchete held (it) for 2 manors and could betake themselves whither they would. There are 5 hides geldable. One of these used not to pay geld because it was in demesne.

(There) are there 2 ploughs and 10 villeins, and 8 bordars with 7 ploughs. (There are) there 3 serfs and a free oxman, and a mill rendering 11s. and 25 sticks of eels. Of meadow-land 5s. besides the pasture of the oxen.

T.R.E. it was worth 6li., now 7li.

#### In Elsedun Hundred

The same Ralf holds WILLAUESLEGE [Willersley] and WIDFERDESTUNE [Winforton]. Earl Harold held (them). There are 4 hides geldable. On the demesne are 4 ploughs, and

<sup>54</sup> Round, Cal. of Doc. France, 138.

(there are) 17 bordars with 3 ploughs, and 3 freemen with 3 ploughs. (There are) there 8 serfs. T.R.E. it was waste, and (? afterwards) was worth

10s. Now 7 li.

The same Ralf holds in the same place I hide geldable. Elward held (it) and could betake himself whither he would. One Welshman holds of Ralf and has there 8 men who have I 1/2 ploughs. It is worth I 25.

## In Stratford Hundred

The same Ralf holds Chabenore [Chabnor]. There are 3 hides geldable. Ernui and Hadwin and Ælward held (them) as three manors. On the demesne are 2 ploughs, and (there are) 4 villeins and 6 bordars and 1 smith with 3 ploughs. (There are) there 6 serfs and meadow-land for the oxen only. The wood renders nothing; and, in addition, there could be 3 more ploughs.

In the same vill lies a third part of a hide, and there is there I plough. The whole T.R.E.

was worth 4li. and 10s. Now 110s.

## IN STEPLESET HUNDRED

The same Ralf holds MANITUNE [Monnington], and Roger <sup>56</sup> of him. Earl Harold held (it). There are 5 hides geldable. Of these Ælmar held 2 as a manor, and could betake himself whither he would.

On the demesne are 3 ploughs, and (there are) 5 villeins and 6 bordars with 3 ploughs.

T.R.E. it was worth 60s. Now 4li.

# In Dunre Hundred

The same Ralf holds Dunne [Dinedor], and William and Ilbert his brother of him. Godric and Ulfac held it as 2 manors. There are 6 hides geldable.

On the demesne are 2 ploughs, and (there are) 13 villeins with a reeve (prepositus) and 5 bordars with 12 ploughs. (There are) there 4 oxmen and 3 bondwomen, and a mill worth 28d. The wood of this (place) the King has in demesne. No one, moreover (vero), fishes in the river (aqua) without leave. T.R.E. these 2 manors were worth 7 li. and 5s. Now the same.

## IN RADELAU HUNDRED

The same Ralf holds HIDE <sup>57</sup> [Hide <sup>58</sup>]. Edith (Eddied) held (it) and could betake herself whither she would. There are 2 hides and I virgate

56 Now Chadnor, in Dilwyn.

<sup>56</sup> This was Roger de Muchegros; for the Inq. p.m. on Walter de Muchegros in 49 Hen. III shows that he held one fee in Monnington and Winforton of Roger de Tony (J.H.R.).

67 'Stoches' erased and 'Hide' inserted.

68 Cf. Cal. of Doc. France, 138.

geldable. On the demesne are 3 ploughs, and (there are) 6 villeins and 5 bordars and 4 cottars with 4 ploughs. (There are) 7 serfs there. In addition there could be 1 more plough there. T.R.E. it was worth 6li. Now 105s.

Of this land Ralf gave half a hide to a certain knight of his, and therefore the manor renders

less.

fol. 183b.

The same Ralf holds I virgate of land in RADELAU HUNDRED, and Bristoald the priest of him. Ulwi held it as a manor, and could betake himself whither he would. This land pays geld. It is called Spertune [Ashperton]. There is there half a plough, and I villein and I bordar. It is worth 45.

The same Ralf holds STOCHES [Stoke Edith]. Edith (Eddied) held (it) and could betake herself whither she would. There (are)  $2\frac{1}{2}$  hides geldable. On the demesne are 2 ploughs, and (there are) 6 villeins and 6 bordars and 2 priests with 7 ploughs. (There are) 7 serfs there, and a mill worth 10s. T.R.E. it was worth 7li. Now 6li. less 5s.

# IX. THE LAND OF RALF DE MORTEMER

## In HEZETRE HUNDRED

Ralf de Mortemer holds WIGEMORE CASTLE. Earl William erected (fecit) it on the waste land which is called MERESTUN <sup>59</sup> [ ], which Gunuert held T.R.E. There are 2 hides geldable.

On the demesne Ralf has 2 ploughs and 4 serfs. The borough which is there renders 7 li.

#### IN HEZETRE HUNDRED

The same Ralf holds DUNTUNE [Downton], and Oidelard of him. Ælmar and Ulchet held (it) as 2 manors and could betake themselves whither they would. (There are) 4 hides there. Two of them do not pay geld. On the demesne are 2 ploughs, and (there are) 3 villeins and 3 bordars with half a plough. (There are) 6 serfs there, and a fishery. The wood (is) half a league long and 5 furlongs broad. There are 2 hayes (baie) there. It was worth 30s. Now as much. This land Earl William gave to Thurstan the Fleming.

The same Ralf holds Boritune [Burrington]. Edric the Wild (Salvage) held (it). (There are) 3 hides and I virgate there. On the demesne are 3 ploughs, and (there are) 7 villeins and 4 bordars with three ploughs. (There are) there

69 See Introd. 275.

9 serfs, and very little (paululum) wood. It is, and was, worth 40s.

The same Ralf holds HESINTUNE [Aston]. Five men held (it) as 3 manors. There (are) 3 hides geldable. On the demesne are 2 ploughs, and (there are) 5 villeins and 2 bordars with 3 ploughs. This land was waste. Now it is worth 30s.

The same Ralf holds ELINTUNE [Elton]. Edric held (it). (There are) 2 hides there. On the demesne are 2 ploughs, and (there are) 6 villeins and 3 bordars and 2 radknights. Among them all they have 3 ploughs. (There are) 4 serfs there, and 2 furlongs of wood. It was worth 12s., now 20s.

The same Ralf holds LENHALE [Leinthall]. Azor held (it). There (are) 2 hides geldable. On the demesne are 2 ploughs, and (there are) 7 villeins and 10 bordars, and 2 radmen and a smith, with 5 ploughs among them all. (There is) 1 serf there; and 3 free oxmen.

T.R.E. it was worth 20s., now 40s.

The same Ralf holds LINTEHALE (Leinthall]. Queen Edith held it. There are 4 hides geldable. On the demesne are 3 ploughs and 10 villeins and 7 bordars and 3 radknights with 7 ploughs. (There are) 6 free oxmen there, and a mill worth 30s. T.R.E. it was worth 50s., now 100s.

The same Ralf holds Lecwe <sup>60</sup> [(? Upper) Lye]. Elsi held (it), and could betake himself whither he would. There (is) half a hide geldable. There he has I plough with 3 bordars, and there could be another plough. It is, and was, worth 5s.

The same Ralf holds Camehop <sup>61</sup> [Conhope]. Elmar held (it), and could betake himself whither he would. There (is) I hide geldable. On the demesne is I plough, and (there are) 6 bordars and a smith with 2 ploughs. (There is) I serf there, and a free oxman and a very small (parvula) wood. It is worth 10s.

The same Ralf holds SCEPEDUNE [Shobdon]. (Edith) held (it). There (are) 4 hides geldable. On the demesne are 3 ploughs, and (there are) 20 villeins and 20 bordars and a radknight and a smith with 9 ploughs. (There are) there 6 serfs. The wood is a league in length and breadth together. It was worth 6li. Now 7li.

The same Ralf holds STANTUNE [Staunton-on-Arrow]. Edric held (it). There (are) 2 hides

60 The 'Comenhop et Leye' of Feud. Aids, 1316, identified as Covenhope or Conhope, and Upper Lye in Aymestrey. The above entry is represented by that on 'Lege' in Testa de Nevill (Rec. Com.), 64.

61 'Kovenhop' in Testa de Nevill (Rec. Com.), 64.

geldable. On the demesne are 2 ploughs and (there are) 6 villeins and 3 bordars with 4 ploughs. It was waste. Now it is worth 40s.

The same Ralf holds LEIDECOTE [Lidecote near Kingsland]. Bricsmar held (it) and could betake himself whither he would. There (is) I hide geldable. There dwell (manent) 8 (men) having I plough, and there could be another plough there. It is worth 10s. and 6d.

The same Ralf holds in Pelelei [? Pilleth-on-Lugg] 61a 2 hides; in Ortune [Orleton?] 2 hides; in Mildetune [Milton] 62 3 hides; in Westune [Weston] 2 hides. In all there are 9 hides of waste land on the marches of Wales. There is land for 18 ploughs. There were seven manors, and five thanes held (them).

The same Ralph has 57 acres of land and all the wood in Lega [Ley], 63 Grifin's manor.

### IN ELSEDUN HUNDRED

The same Ralf holds Elburgelega [ ], and Richard of him. Edric held (it), and could betake himself whither he would. There (is) I hide geldable. On the demesne are 2 ploughs, and (there are) 3 villeins, and 6 bordars with 4 ploughs. It was waste. Now it is worth 30s.

### IN STRATFORD HUNDRED

The same Ralf holds Burlei [Birley], and Richard of him. Edric and Ruillic and Leviet held (it) as 3 manors and could betake themselves whither they would. There are 2 hides and 3 virgates of land geldable. On the demesne are 2 ploughs, and (there are) 3 villeins and 1 radknight and 1 bordar with 3 ploughs. The wood renders 2s. These 3 manors T.R.E. were worth 4li. Now 50s.

The same Ralf holds Burlei [Birley], and Richard of him. Grinchetel held (it), and could betake himself whither he would. There (is) half a hide geldable. On the demesne is half a plough and 2 serfs. It is, and was, worth 35.

### IN PLEGELIET HUNDRED

The same Ralf holds 2 hides in ULFERLAU [Wolferlow]. Alwin held (them). This land pays geld. On the demesne he has I plough, and (there is) I villein with half a plough, and in addition there could be 3 more ploughs. It is worth 10s.

#### IN ULFEI HUNDRED

The same Ralf holds ALRETUNE [Orleton]. Edith held (it). There (are) 4 hides geldable.

<sup>61</sup>a Five miles north of Old Radnor (J.G.W.).
<sup>62</sup> In Pembridge.
<sup>63</sup> See below, p. 343.

On the demesne are 4 ploughs, and (there are) 11 villeins and 15 bordars, and a reeve, and a radman. Among them all (are) 7 ploughs. (There are) 6 serfs there, and 5 oxmen and a smith. T.R.E. it was worth 7li. Now 100s.

fol. 184.

## X. LAND OF ROGER DE LACI

#### IN CUTESTORN HUNDRED

In the jurisdiction of EWIAS [Ewyas Harold] Castle (castellaria) Earl William gave to Walter de Laci 4 carucates of land (which are) waste. Roger de Laci his son holds them, and William and Osbern of him. On the demesne they have 2 ploughs and (there are) 4 Welshmen rendering 2 sestiers of honey. They have 1 plough. There they have 3 serfs and 2 bordars. This land is worth 20s.

The same Roger has an estate called EWIAS [Ewyas Lacy] 64 on the borders of EWIAS (unam terram Ewias dictam in fine Ewias). This land does not belong to the jurisdiction of the castle (castellaria) nor to the hundred. From this land Roger has 15 sestiers of honey and 15 swine, when the men are there, and (he has) pleas over them.

Within the jurisdiction of CLIF(F)ORD CASTLE the same Roger holds 4 carucates of land. His father held them. They were, and are, waste.

### In Gretrewes Hundred

The same Roger holds POTESLEPE [Putley], and William of him. Thostin held (it). There (is) I hide geldable. On the demesne are 2 ploughs, and (there are) 2 villeins and I bordar with 2 ploughs. (There are) 2 serfs there. It is, and was, worth 205.

## IN TORNELAUS HUNDRED

The same Roger holds ACLE [Ocle Pychard]. 65 Six freemen held (it) as 6 manors and could betake themselves whither they would. There are 7 hides geldable. On the demesne are 2 ploughs, and (there are) 7 villeins and 10 bordars, and a reeve (prepositus) and a smith with 9 ploughs among them all. (There are) 12 serfs there.

Of this land Walter de Laci gave to St. Peter of Hereford 2 carucates of land with the consent of King William, and I villein and I bordar with their lands. There are there on the demesne 2 ploughs, and (there are) I villein and I bordar with I plough. And (there is) I serf there. It is worth 25s.

64 Now Longtown.

What Roger holds is worth 75s. All these lands T.R.E. were worth 7li. and 15s.

The same Roger holds MAGGE [Maund], 66 and William of him. Ailric held (it). There are 2 hides geldable. On the demesne are 2 ploughs and 5 serfs. And there might be 2 more ploughs there. It was worth 30s. Now 25s.

The same Roger has in WAIA [the Wye] a fishery which is valued at 61i. The burgesses whom he has in Hereford render him 20s.

The same Roger holds MAGENE [Maund Bryan]; and Hugh of him. Wonni held (it). There I hide pays geld. And I plough is on the demesne, and (there are) 3 serfs there. It was worth 20s., and afterwards 10s. Now (it is worth) 15s.

The same Roger holds Bodeham [Bodenham], and Herbert of him. Edwi held (it). There are  $1\frac{1}{2}$  hides geldable. On the demesne are 2 ploughs and (there are) 6 villeins and 3 bordars and a smith and a beadle and 6 cottars with 6 ploughs. (There are) 6 serfs there, and a mill worth 16s. and 30 sticks of eels. There is meadow (sufficient) for the oxen only. T.R.E. it was worth 50s. Now 60s.

The same Roger holds in the same hundred, and Herbert of him, a manor of r virgate. It does not pay geld. This Edwi Cilt held with r plough. It is, and was, worth 26d.

The same Roger holds I hide belonging to the ferm of MAURDINE [Marden] the King's manor (tenet unam bidam de firma Maurdine M. regis). Ingelran holds (it) of him. On the demesne are 2 ploughs and (there are) 4 villeins and I bordar with 2 ploughs. (There are) 3 serfs there. T.R.E. and afterwards it was worth 40s. Now 60s. Edwi Cilt held (it).

#### IN ULFEI HUNDRED

The same Roger holds WENETONE [Woonton], and Gerald of him. Ernewi held (it). There are 3 virgates geldable, and there is 1 plough there. It was worth 6s. Now 4s.

The same Roger holds HED [Heath in Laysters], and Gerald of him. Lewin held (it). There are 3 virgates geldable. It is worth 6s.

The same Roger holds PILLESDUNE [Pudle-ston], 67 and Hugh of him. Wlward held (it).

<sup>66</sup> These two hides were held as 'Magene Albini' in 1243 by Isabel Devereux of Roger Pichard, Roger holding them of the Honour of Weobley (J.H.R.).

<sup>67</sup> These three hides in Pudleston ('Puclesdun') were entered in 1243 as held 'of the Honour of Richard's Castle' (J.H.R.).

<sup>65</sup> Roger Pichard held four hides here of the Honour of Weobley in 1243 (J.H.R.).

#### HEREFORDSHIRE A HISTORY OF

There are 3 hides geldable. On the demesne are 2 ploughs and (there are) 3 bordars with 1 plough, and a Frenchman with 1 plough and 2 bordars. (There are) 8 serfs there. T.R.E. it was worth 30s. Now 40s.

The same Roger holds I manor 68 of 11 hides geldable. Elwin holds (it) of him. His father Edwi held (it). There he has I plough and 2 villeins with half a plough. (There are) 3 serfs

there. It is, and was, worth 10s.

In the valley (of) STRADELEI [the Dore valley] the same Roger holds Bachetune [Bacton] as 5 hides, and WADETUNE [ ] as 1 hide. These 2 manors Gilbert holds of Roger. Edwi and Alward held these 6 hides, and they were waste. On the demesne is I plough, and (there is) a serf, and 3 Welshmen render 3 sestiers of honey. It is worth 9s.

In the same valley the same Roger holds ELNODESTUNE [? Elston Bridge] 69 as 3 hides, and William holds (it) of Roger, and has 2 ploughs in demesne, and 6 bordars. It is worth IOS.

There the same Roger holds EDWARDESTUNE ] and Walter of him, as I hide. It Now it is worth 8s. was waste.

#### IN DUNRE HUNDRED

The same Roger holds BONINIOPE [Bullingham].70 Elnod held (it) of John the sheriff. There are 2 hides geldable. On the demesne is I plough, and (there are) 4 villeins, and 4 bordars with  $2\frac{1}{2}$  ploughs. (There are) 5 serfs there, and one third part of 2 mills which is worth 14s. and 8d. The wood is in the King's forest. T.R.E. it was worth 50s. Now as much.

The same Roger holds COBEWELLE [Cobhall]. Alward held (it) and could betake himself whither he would. There is I hide geldable. Girold holds of Roger. On the demesne he has 2 ploughs, and (there are) 4 bordars with 1 hide (sic), and 9 serfs and bondwomen together. T.R.E. it was worth 50s. Now as much.

The same Roger holds Malfelle [Mawfield],71 and Ingelran of him. Edwi Cilt held (it). There are 2 hides geldable. On the demesne are 2 ploughs, and (there are) 5 bordars, a smith, and 2 serfs and a bondwoman. Of

68 This manor may have been in the Whyle (near Pudleston), where one hide was held of the Honour of Weobley 'in 1243 (J.H.R.).

69 Marked as 'Elstones Bridge' in Saxton's map,

at south end of Golden valley. Formerly 'Bollynghope.'

71 In Allensmore.

this land Lewin holds I virgate of the same Roger. T.R.E. it was worth 20s. Now 46s.

The same Roger holds WEBETONE [Webton],72 and Berner of him. Ælward held (it). There (is) half a hide. There is I plough there. It is, and was, worth 15s.

The same Roger holds WEBETONE [Webton], and Girald and Berner of him. Edwi held (it). There (are) 21/2 hides. There are 7 bordars there with 3 ploughs. It was waste. Now it is worth 10s.

#### IN CUTESTORNES HUNDRED

The same Roger holds STRATONE [Stretton Sugwas], and Robert of him. Edwi Cilt held (it). There are  $2\frac{1}{2}$  hides geldable. On the demesne are 2 ploughs, and I villein and 9 bordars, and 4 oxmen and 2 radknights. Among them all they have 3 ploughs. T.R.E. it was worth 40s. Now 50s. (There is) a mill there worth 32d.

The same Roger holds LUDE [Lyde], and Ralf of him. Turchil held it of Earl Harold. There (are) 2 hides geldable. On the demesne is I plough, and there can be another. There (are) 3 bordars and 1 freeman with 2½ ploughs. T.R.E. it was worth 20s. Now 25s.

The same Roger holds LUDE [Lyde], and Ralf of him. Bruning held (it). There (is) I hide. On the demesne are 2 ploughs. It was worth 40s. Now 60s.

## IN RADELAU HUNDRED

The same Roger holds Westune [Weston Beggard]. Gunuer held (it) and could betake himself whither he would. There are 6 hides geldable. On the demesne are 2 ploughs, and (there are) 9 villeins and a priest, and 2 bordars, with 9 ploughs. There (are) 6 serfs, and a mill worth 10s., and meadow for the oxen.

T.R.E. it was worth 100s., and now as much.

The same Roger holds Archel [Yarkhill].73 Archil a thane of Earl Harold held (it). There are 2 hides geldable. On the demesne are 2 ploughs, and (there are) 7 villeins and 4 bordars, with 7 ploughs. There (are) 7 serfs, and a mill worth 100d.

T.R.E. it was worth 50s. Now as much.

The same Roger holds Nerefrum [(? Castle) Frome]. Tosti held (it) of Queen Edith. There are 4 hides geldable. On the demesne are 2 ploughs, and (there are) 7 villeins, and 4 bordars and a reeve with 8 ploughs. There (are) 10 serfs, and a mill worth 7s. and 6d. and 5 sticks of eels.

T.R.E. it was worth 60s. Now as much.

78 In Madley. 78 Held with Weston in 1316.

The same Roger holds BRISMERFRUM [(? Halmond) Frome]. Brismer held (it) of Earl Harold. There are 5 hides geldable. On the demesne are 3 ploughs, and (there are) 7 villeins and a reeve and a freeman with 7 ploughs. There (are) 10 serfs and a mill worth 10s. T.R.E. it was worth 70s. Now 60s.

fol. 184b.

The same Roger holds Muneslai [Munsley], 74 and Ralf of him. Brismar held (it), and could betake himself whither he would. There are 3 hides and I virgate geldable. On the demesne are 2 ploughs, and (there are) II villeins and 7 bordars with 9 ploughs.

T.R.E. it was worth 70s. Now 60s.

The same Roger holds Merchelai [Marcle Parva], and Odo of him. Turchil held (it) of Earl Harold. There are 5 hides geldable. On the demesne is I plough, and (there are) IO villeins and 4 bordars with IO ploughs. There (are) I freeman and one radknight with 1½ ploughs. There (are) 5 serfs, and a mill rendering grain (annona). The wood renders 17d. T.R.E. it was worth 100s. Now as much.

Of these same 5 hides Ælric held half (a hide) as a manor and could betake himself whither he would. Now Odo holds (it) with the other land. It is, and was, worth 6s.

The same Roger holds Frome [Frome], and Girard of him. Turchil held (it). There (are) 4 hides geldable. On the demesne are 2 ploughs, and (there are) 8 villeins and 2 bordars and a reeve with 7 ploughs. There (are) 6 serfs, and a mill worth 10s. and 10d.

T.R.E. it was worth 70s. Now 3s. more.

The same Roger holds SBECH [Evesbatch] and Odo of him. Elmer and Alvric and Turchil held (it) as 3 manors of Earl Harold, and could betake themselves whither they would. There (is) I hide only geldable. On the demesne are 4 ploughs and (there are) I villein and I radknight with 2 ploughs, and 3 bondwomen.

T.R.E. it was worth 28s. Now as much.

The same Roger holds HIDE [Hide] and Tezelin of him. Osgod held (it) and could betake himself whither he would. There (is) I hide geldable. On the demesne is I plough, and (there are) I bordar and 4 serfs. It is, and was, worth 5s.

The same Roger holds TATINTUNE [(Little) Tarrington], and Ansfrid 75 of him. Elric held

74 Three hides (in two moieties) were held of the Honour of Weobley there in 1243 (J.H.R.).

75 This seems to be the half hide in Little Tarrington held in 1243 of the Honour of 'Estocot,' i.e. Esketot, a family of great under-tenants of Lacy. But Ansfrid the Domesday under-tenant was doubtless Ansfrid de Cormeilles, who held Great Tarrington in capite (J. H. R.).

(it) and could betake himself whither he would. There is half a hide geldable. On the demesne is I plough, and (there are) I bordar and 3 serfs. It was worth 5s. Now 6s.

The same Roger holds Lede [Leadon in Bishop's Frome], and St. Peter of him by the gift of his father and the grant of King William. Turchil held (it) and could betake himself whither he would. There is half a hide geldable. On the demesne is I plough, and 8 bordars have I plough there.

T.R.E. it was worth 20s. Now as much.

The same Roger holds LEDE [Leadon in Bishop's Frome]. Turchil held (it) and could betake himself whither he would. There is half a hide geldable. There is land for I plough. It is waste. It is worth 4s.

The same Roger holds MATMA [Mathon],<sup>76</sup> and Odo of him. Mereuin, a thane of Earl Odo, held (it), and could not withdraw without the licence of the lord. There is half a hide geldable. There is I plough. It is, and was, worth 105.

#### IN HEZETRE HUNDRED

The same Roger holds LAUTUNE [Lawton] 77 and an Englishman of him. Ulvric held (it). There is I hide geldable. On the demesne is I plough, and (there are) 3 bordars having  $1\frac{1}{2}$  ploughs. There (are) 4 serfs.

T.R.E. it was worth 20s. Now as much.

The same Roger holds Lestret [Street]. Ring Edward held (it). There (is) I hide of which one half was in the King's demesne and does not pay geld, the other half pays geld. This land in the King's farm (de firma regis) Earl William gave to Ewen the Briton. Now William holds it of Roger de Laci, and there he has 3 villeins.

T.R.E. it was worth 20s. Now 15s.

The same Roger holds LIDECOTE [Lidecote near Kingsland], and Gilbert of him. There is I hide geldable. Elste held it and could betake herself whither she would. On the demesne is I plough, and (there is) I man with I plough. It was waste. Now it is worth 10s.

### IN ELSEDUNE HUNDRED

The same Roger holds Hope [Hope], and Walter of him. Ulvric held (it). There are 2 hides geldable. There is land for 4 ploughs. There, there are men rendering 10s. and 8d. for

<sup>76</sup> Domesday explains under Worcestershire that, of the five hides in Mathon, one lay in Herefordshire. This hide is duly entered, in two moieties, under that county (J.H.R.).

77 In Kingsland. 78 Ibid.

the lands on which they have settled (pro suis hospitiis). There is nothing else there.

The same Roger holds LENEHALLE [Lyonshall and Walter of him. Turchil held (it) of Earl Harold. There (are) 5 hides geldable. On the demesne are 2 ploughs, and (there are) 3 villeins and II bordars and 3 radknights with 5 ploughs. There (are) 5 serfs and bondwomen together; and from certain men settled (hospitatis) there 100d. are had so long as they themselves wish (to remain there).79

T.R.E. it was worth 60s. Now 50s.

The same Roger holds Wennetune [Woonton]. Elgar held (it) and could betake himself whither he would. There is I hide geldable. There is nothing on the demesne, but 5 villeins have I be ploughs there. It was worth 3s. and 8d., now 63d.

The same Roger holds HERDESLEGE [Eardislev], and Robert of him. Edwi held (it). This land pays no geld, neither does it give any customary dues, nor does it lie in any hundred. It is situated in the midst of a certain wood, and there is one fortified (defensabilis) house there. On the demesne is I plough, and (there are) 2 serfs and a Welshman rendering 3s.

The same Roger holds LETUNE [Letton], and Tezelin of him. Edwi Cilt held (it), and could betake himself whither he would. There (are) 3 hides geldable. On the demesne is I plough, and a priest and 7 settlers (hospites) with I plough render 5s. There (is) I mill rendering nothing, and 2 serfs. It was worth 2s. Now 30s.

# IN STRADFORD HUNDRED

The same Roger holds Wibelai [Weobley]. Edwi Cilt held (it). There are 3½ hides geldable. On the demesne are 3 ploughs, and (there are) 10 villeins and a priest and a reeve and a smith and 5 bordars with 9½ ploughs. There (are) 11 serfs. The wood (is) half a league long and 4 furlongs broad. There is a park there, and assart 79a land for I plough rendering IIs. and 9d.

St. Peter has one of these villeins of the gift of Walter de Laci.

T.R.E. it was worth 100s., and afterwards 60s. Now 100s.

The same Roger holds FERNEHALLE [Fernhill). Edwi Cilt held (it). There are 2 hides geldable. On the demesne is I plough, and (there are) 9 villeins and 3 bordars and 1 radknight holding half a virgate. Among them all they have 10 ploughs. There (are) 3 serfs.

79a i.e. cleared of wood.

The wood there (is) half a league long and 4 furlongs broad, and (there is) assart 79b land for I plough rendering 54d.

T.R.E. it was worth 60s. Now as much.

The same Roger holds PIONIE [? King's Pyon]. King Edward held (it). There (are) 5 hides geldable. On the demesne are 2 ploughs, and (there are) 8 villeins and 3 bordars and a priest and a reeve and I radknight. Among them all they have 9 ploughs, and in addition there could be 4 more there. There (are) 4 serfs.

Of this land Grifin holds half a hide. Mary of Cormeilles (holds) I virgate and the

tithe of the vill. It is worth 12s.

The whole manor T.R.E. was worth 4li., and now as much.

This land Ewen the Briton held of Earl William, but King William gave (it) to Walter de

The same Roger holds Burlei [Birley], and Godmund of him. Seric a thane of Earl Harold held it. There is half a hide not geldable. On the demesne are 2 ploughs, and 8 bordars with I plough. There (are) 4 serfs, and the wood renders nothing.

T.R.E. it was worth 30s. Now 40s.

The same Roger holds PLETUNE and Osbern of him. Elnod held (it) and could betake himself whither he would. There (are) two-thirds (partes) of I hide, and they pay geld. The land is (for) 2 ploughs. There (are) 2 serfs and nothing more. It is, and was, worth 10s.

The same Roger holds Sugnestun [Swanston]. and Godmund of him. Seric held (it), and could go whither he would. There is I hide geldable. On the demesne (is) nothing. Three villeins and 3 bordars have 2 ploughs.

It was worth 10s. Now 15s.

## In Stepleset Hundred

The same Roger holds Brocheberie [Brobury], and Robert of him. Ernui held (it) of Edwi Cilt and could not withdraw from him. There are 2 hides geldable. On the demesne are 2 ploughs, and (there are) 2 villeins and 6 bordars and I freeman with 3 ploughs. There (are) 2 serfs.

T.R.E. it was worth 10s. Now 20s.

The same Roger holds STANDUNE [Staunton] and Leuric of him. Ernui held (it) of Edwi Cilt. There are 2 hides geldable. half a plough, and in addition there could be I plough there. There 2 villeins have I plough. It is worth 5s.

The same Roger holds MALVESELLE [Mansell (Lacy)]. Elflet held (it) of Earl Harold. There

79b i.e. cleared of wood.

<sup>&</sup>lt;sup>79</sup> See Introd. 293.

are 8 hides geldable. On the demesne are 3 ploughs and there could be a fourth. There (are) 10 villeins and a reeve and 2 Frenchmen and 1 bordar with 10 ploughs.

T.R.E. it was worth 7/i. and afterwards 100s.

Now 8li.

The same Roger holds STANDUNE [Staunton], and William of him. Alric held (it) and could betake himself whither he would. There are 4 hides geldable. On the demesne are 2 ploughs, and (there are) 3 villeins and 4 bordars with 1 fol. 185.

plough, and in addition there could be 3 ploughs there. There (are) 7 serfs and wood 1 league in length and half a league in breadth.

It was worth 25s. Now 30s.

The same Roger holds IAVESOURE [Yazor] 80 and Robert of him. Ludri, a thane of Earl Algar, held (it), and could betake himself whither he would. There (are) 5 hides geldable. On the demesne are 2 ploughs, and (there are) 6 villeins and a smith with 3 ploughs, and I radman renders 2s. There (are) 4 oxmen and I bondwoman.

T.R.E. it was worth 15s., and afterwards 30s. Now 60s.

The same Roger holds Edreshope [Yarsop] 81 and Robert of him. Edwi and Lewin and Semar held it for 3 manors, and could betake themselves whither they would. There are  $1\frac{1}{2}$  hides geldable. On the demesne is 1 plough, and (there are) 1 Frenchman with half a plough, and 1 serf. There could be 2 more ploughs.

T.R.E. it was worth 4s., and afterwards 30s. Now 15s.

The same Roger holds BUIFORD [Byford], and Walter of him. Ailward held (it) and could betake himself whither he would. There are 5 hides geldable. On the demesne is 1 plough, and (there are) 6 villeins and 3 bordars with 2 ploughs. There (are) 2 serfs and a mill worth 205., and there could be 2 more ploughs there.

T.R.E. it was worth 40s., and afterwards 60s.

Now 100s.

The same Roger holds Wermeslai [Wormsley] and Leuric of him. Elwi and Ulnod held (it) of him as 2 manors and could betake themselves whither they would. There are 1 hide and 1 virgate geldable. On the demesne (are)  $1\frac{1}{2}$  ploughs, and (there are) 2 bordars and a priest with  $1\frac{1}{2}$  ploughs, and in addition there could be 1 plough.

T.R.E. it was worth 10s. Now 15s.

80 Yazor was held by the Baskervilles of the Lacys

by knight service (J.H.R.).

sh In 1243 Lanthony Abbey held I hide in 'Erdeshop,' of 'the Honour of Weobley,' in socage (J.H.R.).

The same Roger holds WERMESLAI [Wormsley]. Haduic held (it) and could betake himself whither he would. There is I virgate of land not geldable. There is land for I plough.

It was worth 2s. Now 3s.

### IN PLEGELIET HUNDRED

The same Roger holds STOCHES [Stoke Prior]. Elmer Cilt held (it), and could betake himself whither he would. There are 10 hides geldable. On the demesne are 3 ploughs and (there are) 22 villeins with 6 ploughs, and there could be 6 more (ploughs). There (are) 11 serfs, and a mill worth 5s.

T.R.E. it was worth 10li. Now the same.

The same Roger holds COLINTONE [Collington], and Hugh of him. Ulward the priest held (it) and could betake himself whither he would. There (are) 2 hides geldable. On the demesne is I plough, and (there is) I villein with half a plough. There (are) 2 serfs. It is, and was, worth 20s.

The same Roger holds SARGEBERIE [? Sawbery (Hill)], and Hugh of him. Wenric held (it). There (are)  $2\frac{1}{2}$  virgates. There is land for I plough. It was, and is, waste.

The same Roger holds in ULFERLAU [Wolferlow]. (There are) 6 hides geldable. And Hugh and Walter 82 (hold it) of him. Earl William gave to Walter his (i.e. Roger's) father  $4\frac{1}{2}$  hides, and King William gave to Roger  $1\frac{1}{2}$  hides. This land Alwin the sheriff held T.R.E. and he could betake himself whither he would.

On the demesne are 2 ploughs and (there are) 6 villeins with 3 ploughs, and in addition there could be 3 others. There (are) 3 serfs.

T.R.E. it was worth 40s. Now 65s.

The same Roger holds Frome [Frome], and Hugh of him. Lepsi held (it) and could betake himself whither he would. There is I hide geldable. On the demesne is I plough, and (there are) 3 villeins with I plough. There (are) 2 serfs, and a mill worth 32d.

T.R.E. it was worth 20s. Now 15s.

The same Roger holds TETISTORP [? Tedstone]. Ernesi held (it), and could betake himself whither he would. There is I hide geldable. On the demesne are 2 ploughs, and (there are) 4 villeins and I bordar with 2 ploughs. There (are) 7 serfs.

T.R.E. it was worth 30s., and afterwards 15s. Now 20s.

The same Roger holds Brideneberie [Bredenbury]. Lepsi held (it) and could betake himself

62 'Et Walterius' interlined.

whither he would. There is 1 hide geldable. On the demesne is 1 plough, and (there are) 4 villeins with 4 ploughs, and in addition there could be 3 ploughs there on the demesne. There (are) 5 serfs.

T.R.E. it was worth 30s. Now 10s. Herman

holds (it) of Roger.

The same Roger holds BUTRELIE [Butterley], and Alwin of him. Edwi Cilt, his father, held (it). There are  $3\frac{1}{2}$  hides geldable. On the demesne is I plough and (there are) 4 villeins and 8 bordars with 3 ploughs. There (are) 5 serfs, and a mill worth 16d.

T.R.E. it was worth 20s. Now 30s., and in addition there could be I plough there.

The same Roger holds Merstune [Marston Chapel], and Godmund of him. Seric his father held (it) and could betake himself whither he would. There (is) half a hide geldable. There (are) I plough and 2 serfs. It was worth 4s. Now 5s.

The same Roger holds Grenedene [Grendon (Bishop)], and William of him. Edwi held (it), and Ordric for 2 manors. There are 4 hides geldable. The land is for 8 ploughs. Nothing is there.

The same Roger holds STANFORD [Stanford Bishop], and Turstin of him. Edwi Cilt held (it). There (is) I hide geldable. On the demesne is I plough, and (there are) 2 oxmen and I bordar. It was worth 5s. Now 10s., and in addition there could be I plough there.

The same Roger holds CHIPELAI [83], and Edric of him. Lepsi held (it) and could betake himself whither he would. There is I hide geldable. On the demesne is I plough, and (there are) I villein and I oxman, with I plough. There (are) 3 serfs. It was worth 55. Now 125.

The same Roger holds HANLEI [Hanley], 84 and St. Peter (holds it) in alms of the gift of Walter de Laci. Elnod held (it) and could betake himself whither he would. There (is) half a hide geldable. There is I villein who has I plough. It was worth 65. Now 85.

## XI. LANDS OF ROGER DE MUCEL-GROS

### IN ULFEI HUNDRED

Roger de Micelgros holds of the King UPETONE [Upton]. Archetel and Ergrim held (it) as 2 manors. There are 2 hides geldable. On

<sup>83</sup> Identified by Duncumb with Underley in Wolferlow.

<sup>54</sup> There was a 'Hanley,' now represented by Hanley's End, by Leadon Court, south-east of Bishop's Frome (J.H.R).

the demesne are 2 ploughs, and (there is) I Frenchman with 1 plough. There (are) 4 serfs and 2 bordars. It was, and is, worth 225.

The same Roger holds Last [Laysters]. Archetel and Ergrim held (it) as 2 manors. There is 1 hide geldable. It was worth 45. Now it is waste.

# XII. LAND OF ROBERT GERNON

#### IN ULFEI HUNDRED

Rotbert Gernon holds of the King IARPOL [Yarpole]. Richard Scrupe held (it). There are 3 hides geldable. There are 4 villeins and 8 bordars with 3 ploughs. T.R.E. it was worth 25s. Now 20s.

#### IN CUTESTORN HUNDRED

The same Robert holds 5½ hides in the jurisdiction of (castellaria de) Auretone [Orleton] 85 (castle). Richard held (them). This land does not pay geld. On the demesne are 5 ploughs, and (there are) 34 villeins and 6 bordars and a smith with 15 ploughs among (them) all, and they render 20s. There (are) 10 serfs and a mill rendering 4 muids (modios) of grain and 15 sticks of eels. T.R.E. and afterwards as now it was worth 7 li.

# XIII. THE LAND OF HENRY DE FERIERES

## In GREITREWES HUNDRED

Henry de Ferreres holds Frome [Frome in Mordiford]. Aluiet held (it) of Bishop Æthelstan (Estano) 86 and could betake himself whither he would. There are 2 hides and 1 virgate geldable. On the demesne are 2 ploughs and (there are) 4 villeins and 10 bordars with 2 ploughs. One burgess in Hereford renders 12d. T.R.E. and afterwards as now it was worth 3li.

#### IN CUTESTORN HUNDRED

In the jurisdiction (castellaria) of EWIAS (castle) [Ewyas Harold] Roger holds of Henry 3 churches and a priest and 32 acres of land, and it renders 2 sestiers of honey. In the castle he has 2 burgages (masuras).

fol. 185b.

# XIV. THE LAND OF WILLIAM DE SCOHIES

William de Scohies holds 8 carucates of land in the jurisdiction of Carlion [Caerleon] castle, and Turstin holds (them) of him. There he

85 i.e. Richard's Castle (J.H.R.).

86 Æthelstan, Bishop of Hereford, died 1056.

has on the demesne 1 plough and (there are) 3 Welshmen, living under the Welsh Law (lege IValensi viventes) with 3 ploughs and 2 bordars with half a plough. They render 4 sestiers of honey. There (are) 2 serfs and 1 bondwoman.

This land was waste T.R.E. and when William received it. Now it is worth 40s.

## IN TORNELAUS HUNDRED

The same William holds Magga [Maund Bryan]. Edwin held (it). There is I hide geldable and half a hide not geldable. On the demesne are 2 ploughs and there are 2 villeins and 3 bordars with 2 ploughs and 4 serfs and 3 cottars and meadow for the oxen.

T.R.E. and afterwards it was worth 40s. Now 5s. more.

This manor the clerks of St. Guthlac claim.

The same William holds BRADEFORD<sup>87</sup> [? Broadward]. Edwin held (it). There are 2 hides geldable. On the demesne is I plough, and (there are) 3 bordars with half a plough, and 2 serfs and a smith and meadow land for the oxen. Stefan holds (it) of William.

T.R.E. it was worth 40s., and afterwards 20s. Now 25s.

The same William holds in NIWETUNE [? NEWTON 88] half a hide geldable. Bruns held (it). Bernard holds (it) of William. On the demesne is I plough and (there are) 2 villeins with I plough, and 4 serfs. It was worth 10s., now 12s.

# IN ULFEI HUNDRED

The same William holds Crofta [Croft], and Bernard of him. Edwin held (it). There is I hide geldable. On the demesne is I plough, and (there are) 2 oxmen and I Frenchman and 3 bordars with 2 ploughs. It was worth 20s. Now 25s.

The same William holds POSCETENETUNE [? Poston] in the valley of Stratelei, and Ralf of him. Edwin held (it). There (are) 2 hides. On the demesne is I plough and (there are) 2 villeins with I plough. It was waste. Now (it is worth) 5s.

#### IN ELSEDUN HUNDRED

The same William holds Ruiscop [Riscob]. Earl Harold held (it). There is I hide geldable. It was, and is, waste. There is I have (haia) in a great wood.

The same William holds DILUEN [Dilwyn]. Edwin held (it) and could betake himself whither he would. There are 3 hides geldable. On

the demesne is I plough, and (there are) 8 villeins and 5 bordars with 7 ploughs, and in addition there could be 2 more ploughs. There (is) I bondwoman.

T.R.E. it was worth 4li., and afterwards and

now, 75s.

The same William holds in the same vill I hide geldable. Ernui held (it), and could betake himself whither he would. There is land for 3 ploughs. There are I villein and 3 bordars. T.R.E. it was worth 25s., and afterwards 10s. Now 15s.

## IN STEPLESET HUNDRED

The same William holds ERDESHOP [? Yarsop]. Elmar held it and could betake himself whither he would. There is I hide geldable. On the demesne are 2 ploughs, and (there are) 2 bordars with half a plough and 2 serfs.

T.R.E. it was worth 20s. and afterwards 15s.

Now 20s.

The same William holds in the same vill I virgate of land paying geld. Alvric held (it) and could betake himself whither he would. There is nothing there, but it was, and is, worth 3s.

The same William holds MERSTUNE [Marston]. Edwin held (it) and could betake himself whither he would. There (is) half a hide geldable. On the demesne is I plough, and (there are) 2 serfs.

T.R.E. and after, it was worth 4s. Now 6s.

# XV. THE LAND OF WILLIAM SON OF BADERON

#### IN BREMESESE HUNDRED

William son of Baderon holds Hope [Hope Mansel]. Leuric and Edeulf held (it) as 2 manors. There are 4 hides geldable. Salomon holds (it) of William. On the demesne are 2 ploughs and (there are) I villein and I bordar with I ½ ploughs.

T.R.E. it was worth 40s. and now the same.
One third part of this manor belonged to (iacuit in) the church of St. Peter of Gloucester T.R.E. as the county witnesses.

The same William holds RWIRDIN [Ruardean, co. Glouc.] and Salomon of him. Hadewi held (it). There are 4 hides geldable. On the demesne could be 3 ploughs. There is 1 bordar, and 2 villeins and 1 Welshman with 3 ploughs. It was, and is, worth 30s.

The same William holds I virgate of land of LINTONE [Linton] the King's manor. Lefstan held (it) and could not withdraw himself from

<sup>87</sup> See Introd. 304-5.

<sup>88</sup> Possibly Newton in Hope-under-Dinmore.

that same manor. There is I plough and nothing more. It is, and was, worth 3s.89

#### IN WIMUNSTRUIL HUNDRED

The same William holds half a hide in MERCHELAI [Marcle] the manor of the King.

The same William holds BICRETUNE [Bickerton] and Geoffrey of him. Adulf held (it), and could betake himself whither he would. There is I hide geldable. On the demesne are 2 ploughs, and (there are) 2 villeins with I plough and 2 bordars and 3 serfs. It is, and was, worth 30s.

### In RADELAU HUNDRED

The same William holds STRATUNE [Stretton (Grandison)]. Turchil held (it) of Earl Harold. There (are)  $3\frac{1}{2}$  hides geldable. On the demesne are 2 ploughs, and (there are) 7 villeins and 1 bordar with 7 ploughs and 3 serfs and 30 acres of meadow, and 2 mills worth 6s. and 8d.

T.R.E. it was worth 9li. Now 7li.

The same William holds WITEWICHE [Whitwick]. 90 Turchil held it of Earl Harold. There are 2 hides geldable. On the demesne are 2 ploughs, and (there are) I villein and 2 bordars with I plough, and 3 serfs and 2 acres of meadow. It was, and is, worth 205.

The same William holds SPERTUNE [Ashperton]. Whii held (it) of Earl Harold, and could betake himself whither he would. There (are)  $5\frac{1}{2}$  hides geldable. On the demesne are 4 ploughs, and (there are) 6 villeins and 2 bordars with 3 ploughs and 13 serfs, and 20 acres of meadow. The wood (is) I league in length and breadth.

T.R.E. it was worth 110s. Now as much.

The same William holds WALESAPELDOR [Wolsopthorne] and Gerald of him. Ulmer, a man of Turchil's, held (it) and could betake himself whither he would. There are I hide and I virgate geldable. On the demesne is I plough, and (there are) 2 bordars and I freeman with I plough and 2 acres of meadow.

T.R.E. it was worth 25s. Now as much.

The same William holds Moneslai [Munsley]. Alvric held (it) and could betake himself whither he would. There are  $1\frac{1}{2}$  hides geldable. On the demesne is I plough, and

89 In the margin against this entry is written '[Wil]lm'cū barba.'

90 In Stretton.

<sup>91</sup> i.e. Mainstone in Munsley. For in 1243 Richard de Fay held 1 hide there of John de Monmouth, William's heir (J.H.R.).

(there are) 3 bordars and 1 serf, and 1 plough more could be there. T.R.E. it was worth 30s., and afterwards and now, 15s.

# XVI. THE LAND OF WILLIAM SON OF NORMAN

#### In RADELAU HUNDRED

William son of Norman holds MULESLAGE [Munsley]. Wade held (it), and could betake himself whither he would. There is I hide geldable. On the demesne is I plough, and (there are) 6 bordars and I serf, and there could be half a plough more there.

It is, and was, worth 10s.

# IN PLEGELIET HUNDRED

The same William holds HOPETUNE [Hopton in Avenbury], and Richer of him. Brismar held (it) and could betake himself whither he would. There (are) I hide and I virgate geldable. On the demesne is I plough and (there are) 3 villeins and 2 bordars with 3 ploughs and 4 serfs.

T.R.E. it was worth 30s., and now as much.

#### In Tornelaus Hundred

The same William holds Fenne [Venn]. Steinulf held (it). There are 1½ hides geldable. On the demesne is 1 plough and (there are) 2 villeins and 7 bordars with 2 ploughs and 2 serfs.

T.R.E. it was worth 20s. Now 30s.

The same William holds Ferne [Ferne]. Two radmen held (it) T.R.E. There (is) half a hide. On the demesne are 2 ploughs, and (there are) I villein and 2 bordars with I plough, and 4 serfs and I bondwoman. It was worth 10s. Now 16s.

These two manors belonged to (adiacuerunt ad) the ferm of Maurdine [Marden] the King's manor.

# XVII. THE LAND OF TURSTIN SON OF ROLF

# In Bremesese Hundred

Turstin son of Rolf holds ALWINTUNE [Alton Court (Ross)?]. Brictric held (it) T.R.E. There are 6 hides. On the demesne are 2 ploughs and (there are) 12 villeins with 9 ploughs, and they render 20 blooms of iron and 8 sestiers

99 i.e. Court-o'-Park in Pixley and Munsley. For in 1243 Eleanor de Parco' held I hide in villa de Parco' of Hugh de Kilpeck, William's heir (J.H.R.).

of honey. There (are) 5 serfs, and a mill worth 40d.

T.R.E. it was worth 20s. Now 4li.

# In Radelau Hundred

The same Turstin holds Merchelai [(Much) Marcle], and another Turstin (holds it) of him. Brictric held it of Earl Harold, and could betake himself whither he would. There are 3 hides geldable. On the demesne are 2 ploughs, and (there are) 7 villeins and 4 bordars with 8 ploughs and 4 serfs.

T.R.E. and afterwards as now it was worth 60s.

fol. 186.

# XVIII. THE LAND OF ALBERT OF LORRAINE

# In RADELAU HUNDRED

Albert of Lorraine (Lothariensis) holds LEDENE [Leadon]. 93 Edith sister of Earl Odo held (it). There are 9 hides geldable. On the demesne are 2 ploughs and there could be a third. There (are) 32 villeins and 13 bordars with 32 ploughs. There (are) 6 serfs and a mill worth 32d.

T.R.E. it was worth 14li. Now 15li.

# XIX. THE LAND OF ALVRED DE MERLEBERGE

Alvred de Merleberge holds the castle of EWIAS [Ewyas (Harold)] of King William, for that same King granted to him the lands which had been given to him by Earl William who had re-fortified this castle (terras quas Willelmus comes ei dederat qui hoc castellum refirmaverat), that is, 5 carucates of land there and another 5 carucates at Manitone [Monnington, in Vowchurch]. Also the King granted him the land of Ralf de Bernai which used to belong to the castle.

There he has in demesne 2 ploughs and (there are) 9 Welshmen with 6 ploughs rendering 7 sestiers of honey, and 12 bordars who work one

day a week.

There (are) 4 oxmen and 1 man rendering 6d. His five knights Richard, Gilbert, William and William and Hernold have 5 ploughs in demesne, and 12 bordars and 3 fisheries and 22 acres of meadow.

Two others, William and Ralf, hold land (for)

2 ploughs.

Turstin holds land which renders 19d., and Warner land worth 5s. They have 5 bordars.

This castle of Ewias is worth 10li.

#### IN CUTESTORN HUNDRED

The same Alvred holds Burgelle [Burghill]. Earl Harold held (it.) There (are) 8 hides geld-

93 In Bishop's Frome. Now represented by Leadon Court (J.H.R.).

able. On the demesne are 2 ploughs and (there are) 16 villeins and 19 bordars and a priest with 24 ploughs. There (are) 4 serfs and a mill worth 20s. and 25 sticks of eels. The wood renders 4s. In Hereford 5 burgesses render to this manor 52d.

In this same manor 2 knights have 2 ploughs and 2 oxmen. Godric, a certain thane, has 1 plough, and a certain other (thane) has 1 vil-

lein.

T.R.E. there belonged to this manor the third penny of two hundreds, (namely) Stradford and Chistestornes. Then it was worth 2011. Now 1511.

The same Alvred holds HOPE [Brinsop], and Richard of him. Earl Harold held (it). There are 5 hides geldable. On the demesne are  $2\frac{1}{2}$  ploughs, and (there are) 7 villeins and a priest and 16 bordars with  $5\frac{1}{2}$  ploughs. There (are) 5 oxmen.

T.R.E. it was worth 8li. Now 6li.

These two manors Osbern uncle of Alverad held T.R.E. when Godwin and Harold had been exiled.

## In the Valley of Stradelie

The same Alvred holds MANETUNE [Monnington Stradel]. Earl Harold held it. There (are) 5 hides [blank in MS.]. Ralf de Bernai unjustly withdrew thence I hide. There are 3 Frenchmen with 3 ploughs and 9 bordars and I radman with half a plough.

It was waste. Now it renders 30s.

The same Alvred holds BROCHEURDIE

]. Earl Harold held (it).

There are 5 hides [blank in MS.]. On the demesne is I plough and (there are) 6 villeins and 6 bordars and I man and I Welshman. Among them all they have 3 ploughs. (There are) 3 serfs. It was waste. Now it is worth 3li.

#### IN TORNELAUS HUNDRED

The same Alvred holds one manor of 15 hides 94 geldable, and his daughter (holds) of him. The same Alvred held (it) T.R.E. On the demesne are 3 ploughs and (there are) 21 villeins and 4 bordars and a priest with a church, and a smith. Among them all they have 20 ploughs. There (are) 6 serfs and 6 oxmen and a mill worth 5s.

T.R.E. it was worth 14li. Now 10li.

### IN BREMESESE HUNDRED

The same Alvred holds EDTUNE [Eaton Tregose, in Foy]. Earl Harold held (it). There (are)  $2\frac{1}{2}$  hides geldable. On the demesne is 1 plough, and (there are) 9 villeins and 6 bordars with 7 ploughs.

94 Pencombe (J.H.R.); see Introd. 303

T.R.E. it was worth 50s., and afterwards and now, 40s.

The same Alvred holds PENEBRUGE [Pembridge]. Farl Harold held (it). There are 9 hides less 1 virgate geldable. On the demesne are 3 ploughs and (there are) 20 villeins and 7 bordars and 1 radknight with 12 ploughs. There (are) 3 serfs and a mill worth 10s. There was wood for 160 swine if it had borne mast (si fructificasset).

This manor of Penebruge the canons of St. Guthlac claim, and they say that Earl Godwin and Harold his son unjustly took it away from

St. Guthlac.

T.R.E. it was worth 16li., and afterwards it was waste. Now it is worth 10li. and 10s.

#### In Stratford Hundred

The same Alvred holds STRATFORD [Stratford]. Earl Harold held (it). There are 2 hides geldable. Gilbert holds of Turstin and Turstin of Alvred. On the demesne is 1 plough, and (there are) 1 villein and 4 bordars with half a plough, and there could be 3 ploughs there. There (are) 3 serfs, and meadow rendering 35. There (is) a wood. T.R.E. it was worth 305. Now 205.

#### IN RADELAU HUNDRED

The same Alvred holds CUURE [Cowarne]. Earl Harold held (it). There (are) 15 hides geldable, but King William suffered 6 hides to be

quit from geld.

This manor Alvred's daughter Agnes, wife of Turstin of Wigemore, holds. On the demesne are 2 ploughs, and (there are) a priest and a reeve and 26 villeins and 8 bordars. Among them all they have 32 ploughs. There (are) 4 serfs and a smith, and the meadow and wood render nothing. One hide of this land lies within the King's wood. To this manor belonged the third penny of 3 hundreds T.R.E. Now it has been withdrawn. Then it was worth 25li. Now 100s. less.

# XX. THE LAND OF ALVRED HISPANIENSIS

### IN PLEGELIET HUNDRED

Alured de Hispania 95 holds TORNEBERIE [Thornbury]. Siward held (it) and could betake himself whither he would. There (are) 6 hides geldable. On the demesne are 3 ploughs, and (there are) 4 villeins and 4 bordars with 3 ploughs. There (are) 6 serfs, and there could be 2 more ploughs there.

Mear Skenfrith, not Pembridge near Leominster (J.G.W.).

95 Probably, of Épaignes.

T.R.E. it was worth 61i., and afterwards, 100s. Now 41i. and 10s.

The same Alvred holds in the same vill I hide. Leuric and Leuing and Ernui held (it) as 3 manors. This land was waste. There is half a plough, and (there are) 2 villeins with half a plough, and there could be another plough. This land pays geld. They who held it could betake themselves whither they would. It was worth 13s. and 4d. Now 2s.

# XXI. THE LAND OF ANSFRID OF CORMEILLES

## In Radelau Hundred

Ansfrid of Cormeilles holds TATINTUNE [Tarrington]. Alwold and Ernui held (it) as 2 manors and could betake themselves whither they would. There (are) 3 hides geldable. On the demesne are 2 ploughs, and (there are) 5 villeins and 12 bordars with 9 ploughs, and there are 8 other men there rendering nothing, and there could be 1 more plough there.

There (are) 4 serfs and 3 bondwomen.

T.R.E. it was worth 110s., and afterwards 4li. Now 6li.

The same Ansfrid holds PICHESLEI [Pixley]. Turgar held (it) and could betake himself whither he would. There (is) half a hide geldable. On the demesne is I plough, and (there are) 2 freemen and 2 bordars.

T.R.E. it was worth 8s. Now 10s.

#### IN BREMESESE HUNDRED

The same Ansfrid holds ESTUNE [Aston Ingham <sup>98</sup>], and Godfrey of him. King Edward held (it). There (are) 2 hides geldable. On the demesne is 1 plough, and (there are) 4 villeins and 9 bordars with 8 ploughs, and 8 other men rendering nothing. There (are) 2 oxmen and a mill rendering nothing.

T.R.E. it was worth 50s. Now 100s.

#### In Greitrewes Hundred

The same Ansfrid holds HOPE [Sollers Hope]. 97 Hagene held (it) and could betake himself whither he would. There are 5 hides geldable. Richard holds of Ansfrid and has 2 ploughs on the demesne and 11 serfs. One knight holds 1½ hides and has 1 plough and 1 bordar, and a mill worth 55. There could be 3 more ploughs there.

T.R.E. it was worth 4li., and afterwards 3li. Now 4li.

<sup>96</sup> These two hides were held as at 'Estun Ingan' of the Honour of Cormeilles in 1243 (J.H.R.).

<sup>97</sup> Held of 'the fee of Cormeilles' in 1243 by Walter de Solar[iis], son of James de Solar[iis] (J.H.R.).

#### IN TORNELAUS HUNDRED

The same Ansfrid holds AMBURLEGE [Amberley], and Richard of him. There (is) I hide geldable. On the demesne is I plough, and (there are) 3 serfs and I bordar.

It was, and is, worth 20s.

#### IN DUNRE HUNDRED

The same Ansfrid holds Boninhope [Bulling-ham<sup>98</sup>]. Reuer held (it). There (are) 2 hides [blank in MS.]. On the demesne is I plough, and (there are) 3 villeins and 5 bordars with 2 ploughs, and the third part of two mills rendering 14s. and 8d.

There is wood there, but it is placed (posita) within the King's forest.

It was worth 50s. Now the same.

fol. 186b.

#### IN STRATFORD HUNDRED

The same Ansfrid holds CLEUNGE [Clehonger]. Earl Harold held (it). There are 5 hides geldable. On the demesne are 2 ploughs, and (there are) 3 villeins and 4 bordars with 3 ploughs. There (are) 4 oxmen, and a mill worth 5s., and wood rendering nothing. There is there 1 hide of waste-land. Of this land Girard holds 3 virgates, and has half a plough with 1 man of his own. It was waste. Now it is worth 70s.

# XXII. THE LAND OF DURAND OF GLOUCESTER

### In Radelau Hundred

Durand of Gloucester holds SPERTUNE [Ashperton], and Ralf of him. Ernui a thane of Earl Harold held (it) and could betake himself whither he would. There (are) 3 virgates geldable. On the demesne are 2 ploughs, and (there are) 2 bordars and 4 serfs and 2 bondwomen. It was, and is, worth 20s.

### In Bremesese Hundred

The same Durand holds PANCHILLE [Pontshill in Weston], and Bernard of him. Gunner held (it) and could betake himself whither he would. There (is) I hide geldable. There 6 bordars have 3 ploughs. It was, and is, worth 6s.

The same Durand holds WESTUNE [Weston sub-Penyard], and Bernard of him. The aforesaid Gunner held (it). There (are) 2 hides geldable. There 2 bordars have I plough, and in addition there could be 3 ploughs. It is, and was, worth 4s.

98 This was held with Clehonger and (Great) Tarrington under Hen. III (J.H.R.).

The same Durand holds CALCHEBERGE [ ] and Bernard of him. The same Gunner held (it). There (is) I hide geldable. On the demesne is I plough, and I serf. It is, and was, worth 64d.

#### IN ULFEI HUNDRED

The same Durand and Walter his nephew hold Recessord [Rochford], and Widard (holds) of them. Leuenot held (it).

There (are)  $1\frac{1}{2}$  hides geldable. On the demesne are 2 ploughs, and (there are) 4 bordars with 2 ploughs, and 5 serfs. The wood renders nothing.

T.R.E. it was worth 40s., and afterwards and now 30s.

The same Durand and Walter his nephew hold LAST [Laysters], and Bernard of him (sic). Godric held (it). There (are) 2 hides geldable. It is, and was, waste.

## IN STRATFORD HUNDRED

The same Durand holds TORCHESTONE [Dorstone], and Bernard of him. Robert Fitz Wimarc held (it). There are 3 hides geldable. On the demesne is 1 plough, and (there are) 3 villeins with 2 ploughs. There (are) 2 serfs, and 1 bordar. It was waste. It is worth 40s.

#### In Cutestorn Hundred

The same Durand holds LUTELEI [Lyttley], and Widard of him. Reuer held (it), and Alwin, as 2 manors. There is I hide [blank in MS.]. On the demesne is I plough, and (there are) 2 oxmen. This land King William gave to Roger de Pistes. It was worth 151. Now 101.

# XXIII. THE LAND OF DREW SON OF PONZ

#### IN ULFEI HUNDRED

Drew son of Ponz holds RECESFORD [Rochford]. Where held (it). There (are) I hide and I virgate geldable. On the demesne are 2 ploughs, and (there are) 4 bordars with I plough, and 6 serfs.

T.R.E. it was worth 30s. Now 28s.

The same Drew holds DODINTUNE [? Downton]. Earl Harold held (it). There (are) 7 hides.

The same Drewholds Burcstanestune [? Burrington]. Edwin and Elfild and Elward held (it) as 3 manors. There are 3 hides [blank in MS.].

The same Drew holds RUUENORE [ ].
There is I hide. There Drew has 4 ploughs on the demesne, and (there are) 7 villeins and 2

bordars with 3 ploughs. There (are) 4 serfs and a mill worth 2s. There (are) a priest and a smith. It is worth 100s.

## IN WIMSTRUI HUNDRED

The same Drew holds HANLIE

]. Leuing and Godwin and Elward held (it) as 3 manors, and could betake themselves whither they would. There (are) 1 hide and 1½ virgates geldable. On the demesne is 1 plough, and (there are) 4 bordars with 2 ploughs, and there could be a third plough. There is 1 serf, and a burgess rendering 4d. (de 4 denariis). It was worth 13s. Now 12s. Adelelm holds (it).

## IN RADELAU HUNDRED

The same Drew holds MATME [Mathon]. Alward, a thane of Earl Odo, held it, and could withdraw himself without the lord's leave. There (is) half a hide geldable. Adelelm holds (it) and has there I plough. It was worth 5s. and afterwards 4s. Now 10s.

# XXIV. THE LAND OF OSBERN SON OF RICHARD

## IN HEZETRE HUNDRED

Osbern son of Richard holds MILDETUNE [Milton]. He himself held (it) T.R.E. There (are) 2 hides geldable. On the demesne is I plough, and (there are) 6 villeins with 3 ploughs. There (are) 3 serfs and I bordar. The woods (are) 4 furlongs (taking) length and breadth together (inter). It was waste. Now it is worth 20s.

The same Osbern holds BOITUNE [? Byton]. He himself held (it) T.R.E. There (are) 2 hides. On the demesne is half a plough, and (there are) 4 villeins and 2 bordars with 2 ploughs, and there could be 2 more. There is 1 (wood containing) brushwood (broce). It was worth 12s. Now 20s.

The same Osbern holds and held Bradelege [? Broadheath] as I hide, and Titelege [Titley] as 3 hides, and Bruntune [(Little) Brampton] as I hide, and Chenille [Knill] as 2 hides, and Hercope [ ] as half a hide, and Hertune [? Harpton] as 3 hides, and Hech [ ] as I hide, and Clatretune [ ] as 2 hides, and Querentune [ ] as I hide, and Discote [Discoed] as 3 hides, and Cascope [Cascob] as half a hide.

On these II manors is land for 36 ploughs, but it was, and is, waste. It never paid geld. It lies on the marches of Wales.

The same Osbern holds Lege [Ley], and held (it). There is half a hide, and there could

99 See note 76 above.

be I plough. There is only I villein (there). It is worth 5s. On these waste lands there have grown up woods in which Osbern hunts, and thence he has whatever he can take. (There is) nothing else.

#### IN ELSEDUNE HUNDRED

The same Osbern holds TITELLEGE [Titley]. Earl Harold held (it). There are 3 hides geldable. There is land for 6 ploughs. It was, and is, waste. However, there is there I have (baia) in a little wood.

## In Stratford Hundred

In NEUTONE [Newton] 100 is half a hide which pays geld, and I virgate which does not pay geld. Seric held (it) as 2 manors, and could betake himself where he would. Herbert had (it) of Richard Scrupe.

On the demesne are 3 oxen and (there are) 3 villeins and 1 bordar with 1 plough. It was worth 40s. Now 24s. One plough could be there.

### IN STEPLESET HUNDRED

The same Osbern holds STANTUNE [Staunton on Wye], and Drew (holds it) of him. Saissil held (it), and could betake himself whither he would. There (are) 4 hides geldable. On the demesne are 2 ploughs, and (there are) 6 villeins and 4 bordars with 4 ploughs. There (are) 4 serfs. It was waste. Now it is worth 60s.

## IN TORNELAUS HUNDRED

The same Osbern holds Bodeham [Bodenham] and held (it). There (are) 1½ hides geldable. On the demesne are 3 ploughs, and (there are) 6 villeins and a smith and 2 bordars and a priest and 1 radman, with 8 ploughs among them all. T.R.E. it was worth 60s. Now 48s.

## IN ULFEI HUNDRED

The same Osbern holds HUILECH [The Whyle 101] and held (it). There is I hide geldable. On the demesne are  $1\frac{1}{2}$  ploughs, and (there are) 3 bordars and 2 serfs.

It was worth 12s. Now 8s.

### IN CUTESTORNES HUNDRED

The same Osbern holds Lude [Lyde], and Roger Laci of him. Saisi held (it). There (are) 2 hides geldable. On the demesne are 2 ploughs, and (there are) 1 villein and a reeve and a smith with two ploughs.

It was worth 25s. Now 30s.

100 Near Bredwardine.

<sup>101</sup> Near Pudleston. This I hide in 'Wyle' was held as a quarter of a fee in 1243 of the Honour of Richard's Castle (J.H.R.).

The same Osbern holds LUDEFORDE [Ludford]. There is I hide, and on the demesne 2 ploughs, and (there are) 5 bordars with I plough and a mill worth 6s. It is worth 20s.

The same Osbern has 23 men in the castle of Auretone [Richard's Castle], and they render 10s. This castle is worth 20s. to him.

# XXV. THE LAND OF GILBERT SON OF TUROLD

## IN DUNRE HUNDRED

Gilbert son of Turold holds RETROWAS [Rotherwas]. Siric held (it) T.R.E. There are 3 hides geldable. On the demesne are 2 ploughs, and there are 2 villeins and 3 bordars with 2 ploughs. T.R.E. it was worth 6li. Now 3li. There were there 10 villeins with 13 ploughs.

The same Gilbert holds Boninhope [Bullingham]. Edwin held (it). There (are) 2 hides [blank in MS.]. On the demesne are 2 ploughs, and (there are) 4 villeins and 3 bordars with 2 ploughs, and (there are) 4 serfs there and one third part of a mill which renders 14s. and 8d.

It was worth 50s. Now as much.

fol. 187.

#### IN STRATFORD HUNDRED

The same Gilbert holds WILEHALLE [Winnall]. Robert son of Wimarc held it. There (are) 3 hides. On the demesne is I plough, and there could be another. There (are) 3 villeins and 3 bordars and 2 oxmen with I plough. Picot holds of Gilbert. It was waste. Now it is worth 30s.

#### In Stradelei Valley

The same Gilbert holds Becce [Bach]. Edwin held (it). There (are) 3 hides. There are 8 Welshmen with 2 ploughs; they render 1 hawk and 2 dogs.

The same Gilbert holds MIDEWDE [Middlewood]. Earl Harold held (it). There (are) 2 hides.

The same Gilbert holds HAREWDE [Harewood?]. Edwi held (it). There (are) 4 hides. This land has all been converted into woodland. It was waste and renders nothing.

IN THE VALLEY OF STRADELIE [Golden Valley] (ARE) 56 HIDES (WHICH) 112 PLOUGHS COULD PLOUGH, AND THEY PAY GELD.

### IN PLEGELIET HUNDRED

The same Gilbert holds CHETESTOR [ ]. Ernui and Godwin held (it) as 2 manors, and

102 A hide in 'Ludeford' was held of the Honour of Richard's Castle in 1243. Testa de Nevill, 66 (J.H.R.).

could betake themselves whither they would. There (are) 2 hides geldable. On the demesne are 3 ploughs, and (there are) 7 villeins with 7 ploughs, and in addition there could be another plough on the demesne. There (are) 6 serfs, and a mill worth  $4\frac{1}{2}s$ .

T.R.E. it was worth 50s., and afterwards 45s. Now 70s.

### IN ELSEDUNE HUNDRED

The same Gilbert holds WALLEGE [? Ailey in Eardisley]. Earl Harold held (it). There are 2 hides geldable. These Earl William gave to Gilbert as 4 hides. There is land for 12 ploughs. There is a fortified (defensabilis) house. There is a large wood for hunting. It was waste. Now it is worth 5s.

# XXVI. THE LAND OF ILBERT SON OF TUROLD

## In Greitrewes Hundred

Ilbert son of Turold holds Frome [Frome in Mordiford]. Wlward held (it). There (are)  $1\frac{1}{2}$  hides [blank in MS.]. On the demesne is I plough, and there are 2 villeins and 6 bordars with I plough, and 2 serfs. It was, and is, worth 305.

## In Dunre Hundred

The same Ilbert holds CLEUNGE [Clehonger]. Leuenod held (it), and could betake himself whither he would. There is I hide geldable. On the demesne is I plough, and (there are) I villein and 4 bordars with 2 ploughs. There (are) 2 oxmen. It was waste, now it is worth 25s

# XXVII. THE LAND OF HERMAN DE DREWES

Herman de Drewes holds of the King Merstone [Marston]. Semar and Ulwin and Grim held (it) as 3 manors, and could betake themselves whither they would. There are 3 hides geldable. On the demesne is 1 plough, and (there are) 3 radknights and 7 bordars with 1 plough, and in addition there could be 4 more ploughs there. There (are) 2 serfs, and the woods (are) 5 furlongs in length and breadth together.

T.R.E. it was worth 34s., and afterwards 10s. Now 20s.

# XXVIII. THE LAND OF HUMFREY DE BUIVILE

## IN RADELAU HUNDRED

Humfrey de Buivile holds of the king PICHESLEI [Pixley]. Anschil, a man of the Bishop of Hereford, held (it) and could betake himself whither he would.

There (is) half a hide geldable. On the demesne is 1 plough, and (there are) 2 bordars with 1 plough. It was, and is, worth 8s.

The same Humfrey holds MULESLAGE [? Munsley]. Semar held (it), and could betake himself whither he would. There (is) I hide geldable.

It was worth 16s. Now these 2 manors are at farm for 30s.

# XXIX. THE LAND OF HUGH LASNE

### IN STEPLESET HUNDRED

Hugh Lasne holds CHENECESTRE [Kenchester]. Ulwi Cilt held (it), and could betake himself whither he would. There (are) 4 hides geldable. Of this land a certain Godric bought half a hide from the said Ulwin, and held (it) as a manor. On the demesne Hugh has 2 ploughs, and (there are) 3 serfs and a mill worth 25., and the said Godric has there I plough under Hugh, and half a hide. Of this land the same Hugh transferred (accomodavit) I hide 102a to Earl William, and the Earl gave it to King Mariadoc. There his son Grifin has 2 bordars.

T.R.E. it was worth 60s. Now 70s. What Grifin holds, 5s.

### In GREITREWES HUNDRED

The same Hugh holds HOPE [Fownhope]. 103
Turchil Wit held (it). There (are) 15 hides.
Ten of them pay geld. On the demesne are
3 ploughs, and (there are) 14 villeins and 10
bordars and 2 priests with a church which has
half a hide of land. There (are) a reeve and a
smith and a carpenter. Among them all they
have 25 ploughs. There (are) 18 serfs and
8 bondwomen and a mill worth 5s., and 3 fisheries rendering 300 eels. From the waste lands
the lord has 12s. and 4d.

One member of this manor Hugh gave to a certain knight of his with 1 plough.

T.R.E. it was worth 12li. and afterwards 15li. Now 16li.

### IN TORNELAUS HUNDRED

The same Hugh holds one manor of 1 hide not geldable. Leflet held (it). On the demesne are 2 ploughs, and (there are) 3 bordars and 4 serfs.

T.R.E. it was worth 30s. Now 20s.

The same Hugh holds one manor of 3 virgates geldable. Leflet held (it). There were,

109a Griffin held I hide at Brunshill adjoining Kenchester (J.H.R.).

103 On the Wye. Held in 1243, as 'Fanne Hope' and as 6 hides by Roger de Chandos as of the honour of Snodhill (J.H.R.).

and are, 3 radknights with 3 ploughs, and they serve the lord.

T.R.E. it was worth 13s. Now 10s.

The same Hugh holds SUDTUNE [Sutton]. Leflet held (it). There (are) 2 hides not geldable. There are 1 villein and 6 bordars with 3 ploughs and 1 Frenchman with 1 plough. It is, and was, worth 30s.

# In Stratelie Valley

The same Hugh holds Beltrou [ ]. Lestet held (it). There (is) half a hide.

The same Hugh holds WLUETONE [ ]. Leflet held (it). There (are) 2 hides [blank in MS.]. These 2 estates (terrae) were, and are, waste.

The same Hugh holds WILMESTUNE [Wilmarston]. Leflet held (it). There (are) 5 hides. On the demesne are 2 ploughs, and (there are) 7 villeins and 2 bordars and a smith and 1 radman with 2 bordars. Among them all they have  $2\frac{1}{2}$  ploughs. There (are) 4 serfs, and a mill worth 35.

It was waste. Now it is worth 30s.

The same Hugh holds ALMUNDESTUNE [
]. Alward held (it). There (are) 3
hides. There are 2 Frenchmen with 2 ploughs, and a priest with a church having half a plough, and 3 serfs and 1 bordar and 2 men rendering 8s. It was waste. Now it is worth 20s.

The same Hugh holds ALCAMESTUNE [? Chanstone]. Leflet held (it). There (is) I hide. It was and is waste, but nevertheless it renders 3s.

#### In Cutestornes Hundred

The same Hugh holds Walintone [Wellington]. Turchil Wit held (it). There are 5 hides geldable. On the demesne are 2 ploughs. Formerly there were 5 ploughs; and (there are) 9 villeins and 8 bordars and a priest and a reeve and a smith and 4 radknights. Among them all they have 8 ploughs. There (are) 11 serfs and 9 bondwomen and 2 mills worth 135. At Wich [Droitwich] he has 17 loads of salt for 30d.

T.R.E. it was worth 8li. Now 7li. There were more ploughs there than there are now.

The same Hugh holds CREDENELLE [Credenhill]. Turchil held (it). There are 2 hides not geldable. On the demesne are 2 ploughs. It was, and is, worth 30s.

The same Hugh holds STRATONE [Stretton Sugwas]. Ælward held it. Vitalis holds (it) of Hugh. There (is) half a hide [blank in MS.]. On the demesne is I plough, and 2 serfs. It is, and was, worth 105.

The same Hugh (holds) half a hide in Walintone [Wellington] and Ralf of him. Ulwin held (it). There is I plough. It is, and was, worth 10s.

## In RADELAU HUNDRED

The same Hugh holds LINCUMBE [ ]. Leflet held (it). There (are) 3 virgates [blank in MS.]. The land is for 1 plough. It was worth 9s. Now 7s.

#### IN HEZETRE HUNDRED

The same Hugh holds Bernoldune 104 [ ]. Turchil held (it). There (are) 2 hides [blank in MS.]. The wood there is large, but its extent (quantitas) has not been told. There is I haye (baia) in which he takes what he can. The other land is waste.

#### IN ELSEDUNE HUNDRED

The same Hugh holds in HERDESLEGE [Eardisley] half a hide geldable. Earl Harold held (it). It was, and is, waste.

The same Hugh holds I hide and I virgate of land in CICWRDINE [Chickward], and it pays geld. Earl Harold held (it). Earl William gave it to the same Hugh. It was, and is, waste.

The same Hugh holds Lege [ ]. Leuiet held (it) and could not withdraw without the lord's leave. There is half a hide geldable. The same man holds (it) who held (it) and has there I plough. It was waste. Now it is worth IOS.

# In Sulcet 106 Hundred

The same Hugh holds ETONE [?Eaton in Foy]. Elric held (it) of Turchil Wite. There (is) half a hide, and 2 men who have 2 ploughs, and it renders 2 sestiers of honey. This land does not pay geld.

fol. 187b.

# XXX. THE LAND OF URSO DE ABETOT

## In Plegeliet Hundred

Urso de Abetot holds WIGETUNE [Wigton]. Alwin held (it), and could betake himself whither he would. There (are) I hide and I virgate geldable. There is land for 4 ploughs. It was worth 6s. Now 3s.

This manor Roger de Laci holds in exchange of Urso.

104 This is the 'Bernaldeston' said to be 'in Marchia Wallie' in 1428; Feud. Aids, ii, 412. The name seems to be lost.

105 The only mention of this hundred. It was clearly in the Welsh district.

# XXXI. THE LAND OF GRIFIN SON OF MARIADOC

## In Elsedun Hundred

Grifin son of Mariadoc holds of the King in MATEURDIN [ ] one third part of 2 hides geldable. Earl Harold held (it). Earl William gave it to King Mariadoc. It was, and is, waste, but yet Robert holds there of Grifin one haye (haia).

The same Grifin holds CURDESLEGE [? Kinnersley 106]. Earl Harold held (it). There is I hide geldable. There is land for 2 ploughs. It was, and is, waste, except 3 acres of land lately ploughed there.

## In Stepleset Hundred

The same Grifin holds Bunesulle [Bunshill]. Godric held (it), and could betake himself whither he would. There is I hide geldable. There are 3 villeins and I bordar with I plough, and there could be 3 ploughs there. It was, and is, worth 10s.

The same Grifin holds MALUESELLE [Mansell Gamage]. Godric held (it) and could betake himself whither he would. There are 4 hides geldable. On the demesne is 1 plough, and (there are) 6 villeins and 3 radmen with 9 ploughs, and in addition there could be 3 ploughs there. There (are) 2 serfs. It was worth 100s. Now 10s. less.

The same Grifin holds MALUESELLE [Mansell Gamage]. Goduin and Ulchetel held (it) as 2 manors and could betake themselves whither they would. There is I hide geldable. On the demesne is I plough and there could be another.

T.R.E. it was worth 30s. Now 10s.

## IN PLEGELIET HUNDRED

The same Grifin holds STOCH [Stoke (? Prio1)]. Godric held (it) and could betake himself whither he would. There is I hide geldable, and (there is) I plough, and (there are) 6 villeins with 3 ploughs, and 3 serfs. It was, and is, worth 25s.

### IN HEZETRE HUNDRED

The same Grifin holds Lege [Ley]. Ouen and Elmer held (it) as 2 manors. They were waste. There are 3 hides not geldable. Earl William gave (them) to King Mariadoc. There are 4 villeins and 3 bordars with 2 ploughs. It is worth 15s. The wood of this manor together with 57 acres of land Ralf de Mortemer holds. 107 King William remitted the geld to King Mariadoc and afterwards to his son.

Formerly Kynardesleye.See above, p. 328.

# XXXII. [THE LAND OF] RAYNER

## IN PLEGELIET HUNDRED

Rayner the Carpenter holds of the King Mers-TUNE [Marston]. Ludi held (it) and could betake himself whither he would. There (is) half a hide geldable. On the demesne is I plough with I bordar. It was, and is, worth 45-

#### XXXIII

CARBONEL holds of the King LACRE [ Colegrim held (it) and could betake himself whither he would. There (is) I hide geldable. (There is) half a plough, and (there are) 2 villeins with a plough. It was worth 30s. and afterwards 20s. Now, 24s.

## XXXIV

#### In Stepleset Hundred

THE WIFE OF RALPH THE CHAPLAIN holds Erdesope [? Yarsop] of the King. Oruenot held (it) and could not withdraw from his lord. There (are) 3 virgates of land geldable. There (are) 2 serfs and 4 beasts (animalia). worth 8s. Now, 12s.

### In Plegeliet Hundred

In RUEDENE [Rowden, in Edvin Ralph] the same woman with her son Walter holds half a hide

geldable. It is waste and yet it renders 25. Auene held (it) and it was worth 3s.

#### XXXV

## In Tornelaus Hundred

STEPHEN holds of the King in MAURDINE [Marden] I virgate of land. Alward held (it) of King Edward as a manor. On the demesne he has I plough, and (there are) 3 bordars and 4 serfs. It was, and is, worth 10s.

## XXXVI

#### In Radelau Hundred

Madoc holds of the King Sperture [Ashrton]. Godric held (it). There is I hide geldable, and (there is) I plough on the demesne, and (there are) 2 serfs and I villein and I bordar with I plough. It was, and is, worth

#### In Ulfei Hundred

EDRIC holds of the King Last [Laysters Chapel] and he himself held it of King Edward. There are 11 hides geldable. Then it was worth 15s. Now it is waste.

## In the Same Hundred

ELMER holds of the King half a hide. He himself held it of King Edward and paid geld. It is worth 10d.

# LAND AFTERWARDS IN HEREFORDSHIRE ENTERED UNDER SHROPSHIRE

fol. 258.

## IN LENTEURDE HUNDRET

The same P[icot de Sai] holds of the Earl (of Shrewsbury) 3 virgates of land in Lenteurde [Leintwardine], and Fulc (holds them) of him. There is land for 2 ploughs. It renders 5s. annually.

fol. 258b.

The same P[icot] holds EDELACTUNE [Adley], 108 and Bernard (holds it) of him. There are 3 hides and 3 virgates geldable. There is land for 8 ploughs. In demesne is I plough with 2 oxmen. It is worth 6s. There is I league of wood(land). It was and is, for a great part, waste.

fol. 260.

#### In Lenteurd Hundret

The same Ralf (de Mortimer) holds Len-TEURDE [Leintwardine]. King Edward held (it).

105 In Brampton Bryan.

4 hides and I virgate are there. There is land for 14 ploughs. In demesne are 3 ploughs and 6 oxmen, and (there are) 10 villeins and 8 bordars and a reeve and 2 radmans with a priest. Among them all they have 8 ploughs. There is a church there, and a mill yielding (de) 6s. and 8d. and 6 'sticks' of eels. Of this land a knight holds 1½ hides and has there 1 plough and 5 serfs; and there are 5 villeins and 3 bordars with 2 ploughs. Two men there render 4s. for hire (locatione) of land. There is I league of wood-(land). T.R.E. it was worth 40s., and afterwards 30s. Now 4li.

The same Ralf holds STANEWEI [Stanway]. Ælmær held (it). There is I hide geldable. There is land for 3 ploughs. In demesne are 2 (ploughs) and 6 serfs and there is a reeve with half a plough. It was worth 10s.; now 12s.

The same Ralf holds ALFERTINTUNE [Adforton]. 109 Edric held (it). There are 3 hides

109 In Leintwardine.

geldable. There is land for 6 ploughs. (There are) 5 villeins and 6 bordars and 1 radman with 4 ploughs among them all. It was worth 8s.; now 5s.

The same Ralf holds LINGHAM [Lingen] and Turstin 110 (holds it) of him. Gunwar and Edric held (it) as 2 manors. There are  $1\frac{1}{2}$  hides geldable. There is land for 7 ploughs. In demesne is 1, and 2 oxmen, and (there are) 1 villein and 4 bordars with 2 ploughs. Half a league of woodland (is) there, and 3 'hayes' for taking roe-deer (capreolis capiendis). T.R.E. it was waste, and afterwards was worth 6s. Now 10s.

The same Ralf holds SIRELEI [Shirley], and Turstin (holds it) of him. Ælmar held (it). There is land for I plough. It is there with 2 serfs and I bordar. It was waste. It is now worth 25.

The same Ralf holds Lege [Lye] 111 and a knight (holds it) of him. Elmar 112 held (it). I hide is there. There is land for 2 ploughs. In demesne is 1, and 2 oxmen, and there are 2 bordars with I plough. There are 2 'hayes' there. It was worth T.R.E. 5s. Now 7s. (He) found (it) waste.

The same Ralf holds TUMBELAWE [ ]. Eldred held (it).  $1\frac{1}{2}$  hides (are) there. There is land for 5 ploughs. It is and was waste.

The same Ralf holds LECTUNE [Letton], 113 and Ingelram holds (it) of him. Seward held (it). 1½ hides (are) there. There is land for 6 ploughs. There 6 villeins with 1 knight have 3 ploughs. It was waste, and was afterwards worth 5s. Now 10s.

The same Ralf holds WALIFORDE [Walford], 114 and St. Mary of Wigmore 115 (holds it) of him. Alsi held (it). Half a hide (is) there. There is land for 2 ploughs. In demesne is 1, with 2 oxmen. It was worth 12s. Now 8s. (He) found (it) waste.

110 See p. 304, above.

fol. 260b.

The same Ralf holds Waliford [Walford], 114 and Ingelram holds (it) of him. Ulward and Blachemer and Dunning held (it) as 3 manors. 2½ hides (are) there. There is land for 5 ploughs. In demesne are 2, and 4 oxmen, and (there are) 4 villeins with 1 plough. T.R.E. it was worth 1 115., and afterwards 125. Now 155.

The same Ralf holds Buctone [Buckton], and Oidelard (holds it) of him. Saxi held (it). 5 hides are there. There is land for 10 ploughs. In demesne are 2, and 4 oxmen, and (there are) 2 villeins and 1 bordar with half a plough. There is a mill worth (de) 8s. T.R.E. it was worth 30s., and afterwards 20s. Now 21s.

The same Ralf holds BRANTUNE [Brampton (Bryan)], and Richard holds (it) of him. Gunwar held (it).  $2\frac{1}{2}$  hides (are) there. There is land for  $6\frac{1}{2}$  ploughs. In demesne is  $1\frac{1}{2}$  and 3 oxmen, and (there are) I villein and 3 bordars. There (is) half a league of wood(land). T.R.E. it was waste and afterwards worth 5s. Now 10s.

The same Ralf holds PEDEWRDE [Pedwardine], and Richard holds (it) of him. Elric held (it). 3 virgates of land (are) there. There is land for 2 ploughs. In demesne there is 1 and 2 oxmen and (there is) 1 bordar. It is worth 35. It was waste.

The same Ralf holds PEDEWRDE [Pedwardine], and Richard holds (it) of him. Erniet held (it). I hide is there. There is land for 2 ploughs. In demesne is I and 2 oxmen, and (there is) I bordar. T.R.E. and afterwards, as now, it was worth 105.

The same Ralf holds PEDEWRDE [Pedwardine], and Richard holds (it) of him. Ærgrim held (it). 3 virgates are there. There is land for 2 ploughs. There are 2 villeins with half a plough. T.R.E. it was waste, and afterwards, as now, was worth 55.

The same Ralf holds ADELESTUNE (Adley] 116 and Helgot (holds it) of him. Ravenesward held (it). Half a hide of land (is) there. There is land for 2 ploughs. It was and is waste.

The same Ralf holds half a virgate of land in Edelacture [Adley]. It is waste.

116 In Brampton Bryan.

<sup>&</sup>lt;sup>111</sup> In Aymestrey. Cf. Testa de Nevill, 64, and Feud. Aids.

<sup>112</sup> Identical with the above 'Ælmær.'

<sup>113</sup> In Leintwardine.

<sup>114</sup> In Leintwardine.

<sup>113</sup> See p. 283, above.

N size and wealth the county of Hereford is one of the lesser counties of England, but in historic interest it is one of the first. greater part of it lies in the fertile valley of the Wye, after that river has emerged from the confines of the Welsh hills. It is cut off from the lower valley of the Severn, occupied by the shires of Worcester and Gloucester, by the narrow ridge of the Malvern Hills on the east and by the broken country of the Forest of Dean to the south. To the north no well-marked natural division now separates it from Shropshire and the upper valley of the Severn, though in former times the inconsiderable stream of the Teme formed its boundary from Ludlow to Whitbourne. west the Monnow parts Herefordshire from Monmouthshire, while to the west and north-west lie the mountains of Wales, broken into two great masses by the upper channel of the Wye, which divides the Black Mountains of Brecknockshire from the less inaccessible hills of Radnorshire, pierced by the valleys of the Arrow, the Lugg, and the Teme. Those mountains were for centuries the abode of a hostile race, ever ready to burst forth on the fertile plains of Herefordshire, plundering and slaying, and carrying off the cattle of the inhabitants.

The county itself is divided by the Wye into two parts, which historically as well as geographically have a distinct character. The larger part, to the north and east of the river, forms the county proper, shielded from attack from the west by the Wye and the frontier districts beyond, and only in contact with the Welsh frontier on the narrow and shifting northwestern border line. This part of the county contains all its important towns, Hereford and Ross on the Wye itself, with Leominster, Weobley, and Ledbury.

South-west of the Wye in the time of Domesday, when we first get an accurate view of the extent of the county, lay the frontier districts of Archenfield and Stradel. Archenfield comprised the district to the south-east between the Wye and the Monnow, the modern archdeaconry of Irchenfield, while to the north-west lay Stradel, roughly corresponding to the modern Golden Valley through which runs the River Dore. From their situation these districts acquired a distinct character; the inhabitants of Archenfield were warlike borderers, dwelling in small fortified strongholds, while those of Stradel were mainly Welsh by race.

The early history of the western midlands is more obscure than that of any other part of England. In the first century A.D. Herefordshire formed part of the territory of the Silures, who occupied the eastern half of South Wales, apparently between the lower course of the Severn and the Bay of Carmarthen. Their country was occupied by Ostorius Scapula in A.D. 50, but he

<sup>&</sup>lt;sup>1</sup> Tacites, Agricola, cap. ii; Rhys, Celtic Britain (1904), 81-2; Arch. Cambr. (Ser. 3), i, 193-5.

found it impossible to maintain his hold, and the outposts which he established suffered severe losses.2 The identification of the scene of the final overthrow of Caractacus in 50 A.D. with Coxall Knoll, near Brampton Bryan, is now generally abandoned in favour of some site in Shropshire. The battle was in the territory of the Ordovices, who did not extend so far south as Herefordshire. The Silures were finally subdued by Sextus Julius Frontinus, Agricola's predecessor, who commanded in Britain from 75 to 78,8 but regained their independence before the final withdrawal of the Roman troops in 411. Their connexion with the mythical Uther and Arthur of Nennius can hardly be regarded as serious history; 4 nor can much be made of the legendary connexion of the early Welsh saint, Dubricius, with the district, although there is no reason to doubt it entirely.5

When the Anglo-Saxon settlements reached the confines of Wales the modern Herefordshire was occupied by folk termed by Florence of Worcester the Magesaetas and the Hecanas. It is impossible to determine the area of their occupation exactly, but roughly it coincided with the diocese of Hereford, comprising Herefordshire and southern Shropshire, with a fluctuating western boundary. Earle is indeed inclined to place the Magesaetas in Worcestershire, 6 and their position in the van of the invaders must have meant considerable changes in their geographical position at different times. To determine the relative position of the Magesaetas and Hecanas is impossible, and indeed the names do not appear to belong to the same period. The terms are used by Florence of Worcester as if they were different and successive names for the same folk, the Hecanas being the earlier.7 It is more than possible that the Hecanas were in reality a Welsh tribe, owning the political supremacy of the king of the Mercians, who in the time of Offa were replaced in eastern Herefordshire by the Magesaetas, an English folk. But this is conjectural.

When the independent folk began to give place to the larger kingdoms, the Mercians were consolidated under Crida between 584 and 593. It is uncertain at what time the territory of the Hecanas was included in the dominions of the Mercian kings, but it is possible that it was in 628, the year of the convention at Cirencester between Penda the great king of the Mercians and Cynegils the king of the West Saxons.8 The fall of Penda in Loidis in 654 or 6559 broke up the kingdom of the Mercians for a time, but in 661 Wulfhere, the second son of Penda, again extended his rule over the West Hecanas, appointing his brother Merewald as under-king.10 Merewald is said to have resided at Kingland near Leominster. In 676 Putta, bishop of Rochester, took refuge in Mercia, and Sexwulf, the Mercian bishop, gave him a church among the Hecanas.<sup>12</sup> By 688 at latest they were formed into a separate bishopric. 18 Under

<sup>&</sup>lt;sup>2</sup> Tacitus, Annals, xii, 38, 39. 3 Tacitus, Agricola, c. 17.

For a summary of the Arthurian question see Ramsay, Foundations of Engl. (1898), i. 124-6.

<sup>&</sup>lt;sup>5</sup> See Dict. Nat. Biog. s. v. Dubricius.
<sup>7</sup> Flor. Worc. Chron. (ed. Thorpe), i, 238. 6 Arch. Journ. xix, 51-2.

<sup>8</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 44. The conjecture is Sir James H. Ramsay's. Foundations of Engl. i, 184; cf. Green, Making of Engl. (1883), 267.

9 Angl.-Sax. Chron. (Rolls Ser.), 50.

10 Flor. Worc. Chron. (ed. Thorpe), i, 265.

<sup>&</sup>lt;sup>11</sup> Arch. Cambr. (Ser. 2), v, 103.

<sup>12</sup> Bede, Hist. Eccl. iv, 12 (ed. Plummer), ii. 222; Flor. Worc. Chron. i, 238; Haddan and Stubbs, 13 Stubbs, Reg. Sacr. (1897), s. a. Concilia, iii, 130.

Ethelbald the Mercian supremacy was extended over all England south of the Humber.14 A fruit of the Mercian ascendancy was the translation of Cuthbert bishop of Hereford to the see of Canterbury 15 about 740. The Welsh expedition of Ethelbald in 742 or 743, in which he was supported by his vassal Cuthred, king of the West Saxons, must have affected the districts of the Hecanas. The defeat of Ethelbald by Cuthred at Burford about 751 destroyed the Mercian hegemony, which, however, was regained by Offa in 779 by his victory over Cynewulf at Bensington. This king then directed his efforts against the Welsh. So early as 760 there had been fighting between the Britons and Saxons in the neighbourhood of Hereford.16 The establishment of Offa's Dyke from the mouth of the Wye to the mouth of the Dee fixed the modern limits of Wales.<sup>17</sup> The dyke entered the modern county of Hereford near Knighton, joined the Wye near Bridge Sollers, and thence followed the left bank. It thus included the greater part of the shire within the English frontier. Traces of the work survive at Moorhampton, near Lyonshall, and on Harrock Hill.<sup>18</sup> In 794 the East Saxon king, Ethelbert, was slain by Offa.19 According to later accounts he was buried in the city of Hereford, where afterwards he became the patron saint of the cathedral church. Legend has made Sutton Walls the place of his death.20

For a considerable period the history of Herefordshire is obscure, though, owing to its proximity to Wales, it can hardly have been peaceable. By 880 the limits of English occupation had been extended into Radnorshire.<sup>21</sup> In the tenth century the incursions of the Danes had reached this quarter of England. In 915 under two jarls, Ottar and Hraold, they rounded Land's End, entered the Severn and captured Cyfeiliawg, bishop of Llandaff. were defeated by the men of Herefordshire and Gloucestershire in Archenfield with the loss of Hraold and driven from the country.<sup>22</sup> Western Mercia was at this time under the rule of Ethelflaed, daughter of Alfred and widow of Ethelred the ealdorman of the Mercians, but on her death in 919 the administration was taken over by her brother Edward the Elder. Previously, in May, 918, he had ordered a burh to be built at 'Wigingamere,' which has been identified with Wigmore. But as this fortification as well as a similar one at Towcester was erected to check the raids from Danish Mercia and East Anglia,28 the place referred to can hardly be Wigmore in Herefordshire, the future seat of the great house of Mortimer. It was more probably Waymere Castle near Bishop's Stortford.24 In the reign of Athelstan the Welsh princes were compelled to do homage at Hereford,25 and the Wye was fixed as the western boundary of Mercia, thus re-establishing the limits of Offa.

<sup>14</sup> Bede, v. 23.

<sup>15</sup> Flor. Worc. Chron. (ed. Thorpe), i. 54; Simeon of Durham, Opera (Rolls Ser.), ii, 32, 38.

<sup>16</sup> Annales Cambriae (Rolls Ser.), 10; Brut y Tywysogion (Rolls Ser.), 7.

<sup>&</sup>lt;sup>16</sup> Annales Cambriae (Rolls Ser.), 10; Brut y Tywysogion (Rolls Ser.), 7.

<sup>17</sup> Asser, Life of Alfred (ed. Stevenson, 1904), 12,204; Giraldus Cambrensis, Opera (Rolls Ser.), vi, 217; Brut y Tywysogion (Rolls Ser.), 8; Polychronicon Ranulphi Higden (Rolls Ser.), ii, 34; cf. Rhys and Brynmor-Jones, Welsh People, 141; Arch. Cambr. (Ser. 2), ii, 1-23, 151-4; Hartshorne, Salopia Antiqua (1841).

<sup>18</sup> Cont. of Duncumb's Hist. of Heref. by W. H. Cook, Hundred of Grimsworth (1886), 27.

<sup>19</sup> Flor. Worc. Chron. (ed. Thorpe), i, 62-3.

<sup>20</sup> Giraldus Cambrensis, Opera (Rolls Ser.), iii, 407-8, 421-4; see also Dict. Nat. Biog. s. v. Ethelbert.

<sup>21</sup> Kemble, Cod. Dipl. (Engl. Hist. Soc.), No. 311.

<sup>&</sup>lt;sup>22</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 188-9; Flor. Worc. Chron. (ed. Thorpe), i, 123.

<sup>&</sup>lt;sup>23</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 194. 24 Ramsay, Foundations of Engl. i, 274. <sup>25</sup> William of Malmesbury, Gesta Regum (Rolls Ser.), i, 148; Liber de Hyda (Rolls Ser.), 124.

For the next hundred years the shire remained a part of the great ealdordom of the Mercians with no distinct history. It was not included in the ealdordom of Leofwine, 'dux Wicciarum provinciarum,' separated from Mercia before 994,26 which apparently corresponded to the old diocese of Worcester, including Gloucestershire, Worcestershire, and part of Warwickshire,27 for when Eadric, who became ealdorman of the Mercians in 1007,38 with premeditated double treachery deserted Cnut in 1016 and joined Eadmund at Aylesford he brought over the Magesaetas with him. Later in the year at Assandun Eadric and the Magesaetas set an example of treacherous flight before a blow had been struck.39 In the subsequent partition of England, Mercia fell to Cnut. The death of Eadmund on 30 November and the acquisition of the whole kingdom by Cnut was followed in 1017 by the appointment of Eadric Streona to the new office of earl of the Mercians.<sup>80</sup> In the same year, however, Eadric was put to death. The subsequent distribution of the western provinces of Mercia is uncertain. Freeman believed that Leofwine, the ealdorman of the Hwiccas, was promoted to Eadric's earldom, but that Ranig was appointed at the same time to a new ealdordom, that of the Magesaetas. He certainly signed as 'dux' in 1018,31 though his name does not appear in connexion with any particular folk until 1041. He probably held his office in subordination to the great earl Leofric. 82 In 1041 the inhabitants of Worcestershire resisted Harthacnut's gelds and the citizens of Worcester slew two of his huscarles. In consequence the forces of the West Saxons, Northumbrians, and Mercians under their earls were called out against them, and Ranig, who is styled earl of the Magesaetas, also accompanied the expedition with his folk.88 The shire was harried and the city burned.

Shortly after the accession of Edward the Confessor in 1042,84 possibly on the death of Ranig, Herefordshire was transferred to Swegen, Godwin's eldest son, whose earldom included also Oxfordshire, Gloucestershire, Somerset, and Berkshire.36 This change removed the Magesaetas from Leofric's sphere of influence and placed them under the rival house of Godwin. noteworthy that this is the first designation of the district by Florence by its modern name of Herefordshire.86 The chief event of Swegen's government was his interference in Welsh feuds. In 1045 Gruffydd ab Llywelyn, king of Gwynedd, was contesting the possession of South Wales with Gruffydd ab Rhydderch, and in the course of the campaign nearly all Deheubarth, which was coterminous with Herefordshire, was laid waste. In 1046 Swegen joined his forces to those of Gruffydd of Gwynedd, and took part in a successful campaign.<sup>87</sup> On his return he sent for Eadgifu, abbess of Leo-

<sup>&</sup>lt;sup>26</sup> Kemble, Cod. Dipl. Nos. 696, 698, 1,303.

<sup>&</sup>lt;sup>27</sup> Freeman, Old Engl. Hist. 39, 82; Norman Conq. (1877), i, 738.

<sup>&</sup>lt;sup>28</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 258.

<sup>29</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 282, 283; Flor. Worc. Chron. (ed. Thorpe), i, 175-8; Simeon of Durham, Opera (Rolls Ser.), ii, 152.

<sup>31</sup> Cod. Dipl. Nos. 728, 739, 755. 30 Angl.-Sax. Chron. (Rolls Ser.), i, 284, 285.

<sup>39</sup> Freeman, Norman Conq. (1877), i, 520, ii, 573

<sup>33</sup> Flor. Worc. Chron. i, 195-6.
34 Cod. Dipl. No. 767. Freeman thinks that Swegen was made an Earl at the Gemót which placed Edward on the throne; Norman Conq. ii, 367.

<sup>36</sup> Flor. Worc. Chron. i, 205. Ramsay needlessly questions the accuracy of the list. Foundations of Engl. i, 440.

86 Provincia Herefordensis.

<sup>37</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 302.

minster, and made her his mistress.<sup>38</sup> Florence of Worcester states that he desired to marry her, and being prevented left the country. In any case he was outlawed, either before or after he had left England.39 It is uncertain to whom Herefordshire was entrusted after his exile. Some of Swegen's possessions were divided between his brother Harold and his cousin Beorn,40 and probably the earldom was among them. But it is also possible, as Freeman conjectures, that Herefordshire at least was transferred to Ralph, Edward's nephew, who held the rank of earl in 1050.41 As Ralph, however, continued to hold an earldom after the restoration of Swegen,42 it is on the whole more likely that his jurisdiction extended over Worcestershire and Warwickshire, part of the territory of the Hwiccas. But the evidence does not admit an exact decision, and during Swegen's exile Herefordshire may have been under the authority of Harold, of Beorn, or of Ralph.48

In 1049 Swegen endeavoured to make his peace with King Edward and to recover his possessions, but was foiled by the refusal of Harold and Beorn to part with those which had been granted to them. In revenge he murdered Beorn, afterwards escaping with difficulty to Flanders.44 following spring Swegen was inlawed and probably restored to his earldom.46 During his absence the men of Herefordshire, together with those of Gloucestershire, had suffered a defeat on 29 July, 1049, while endeavouring under the leadership of Ealdred, bishop of Worcester, to repel an invasion of Gloucestershire by Gruffydd ab Rhydderch, with whom was leagued a band

of Irish pirates.46

In 1051 Swegen was involved in his father Godwin's quarrel with Edward concerning the chastisement of Dover. Besides the main cause of difference one authority adds as a secondary grievance that the foreigners had built a castle in Herefordshire, among the followers of Earl Swegen, and wrought every kind of harm and insult to the king's men thereabout that they could.<sup>47</sup> The erection of this castle has been ascribed by Freeman to Richard Scrupe, who according to Domesday held the manor of Burford in Shropshire, four manors in Worcestershire, and lands in Herefordshire.48 The same author places the castle in the present parish of Richard's Castle on the borders of Shropshire, three and a half miles from Ludlow.49 It is certain that there was a castle there in the time of Domesday, the castle of Avreton,50 a name surviving in that of Overton, a small hamlet in the parish. But there is no adequate reason for the identification of the foreigners' castle with Avreton or Richard's Castle, and Mr. J. H. Round has urged that it is

<sup>38</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 302; Flor. Worc. Chron. i, 201-2.

<sup>39</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 308, 309; Henry of Huntingdon, Hist. Angl. (Rolls Ser.), 192.

<sup>40</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 300, 309; Henry of Huntington, Hist. Angl. (Rolls Ser.), 192.
41 Cod. Dipl. Nos. 792, 793.
42 Flor. Worc. Chron. (ed. Thorpe), i, 205. Ramsay thinks that Swegen was not restored to his earldom, Foundations of Engl. i, 447, and there is a passage in William of Malmesbury which states that Ralph was earl of Hereford in 1051, Gesta Regum (Rolls Ser.), i, 241. But, as Freeman points out, William of Malmesbury's chronology is often inexact. Moreover the Chron. definitely states that Swegen had an earldom in 1051, Angl.-Sax. Chron. i, 315.

<sup>48</sup> See Freeman's Norman Conq. (1877), ii, 577-80. His conclusions are too definite.
44 Angl.-Sax. Chron. (Rolls Ser.), i, 307, 308; Flor. Worc. Chron. (ed. Thorpe), i, 202-3; Hen. of Hunt. Hist. Angl. (Rolls Ser.), 193.

Angl. (Rolls Ser.), 193.

45 Angl.-Sax. Chron. (Rolls Ser.), i, 312, 315; Flor. Worc. Chron. (ed. Thorpe), i, 203.

46 Angl.-Sax. Chron. (Rolls Ser.), i, 310; Flor. Worc. Chron. (ed. Thorpe), i, 203.

47 Angl.-Sax. Chron. (Rolls Ser.), i, 315.

48 Domesday (Rec. Com.), i, 176b, 186b, 260.

49 Norman Conq. ii, 138.

50 Domesday (Rec. Com.), i, 186b.

more probable that it was Ewyas Harold, where certainly a castle existed before the time of William Fitzosbern. There is also strong reason for identifying the obnoxious castle with Pentecost's Castle, which in 1052 is mentioned as a Norman stronghold, and it is extremely probable that Pentecost's Castle was Ewyas Harold.<sup>51</sup> In either case this is remarkable as the first definite mention of a castle of the Norman type on English ground, although Edward the Elder and Ethelfleda had employed fortified 'burhs' as defences against the Danes. 52

When Godwin resolved to appear at the Witan at Gloucester Swegen joined his father and his brother Harold at Beverstone in Gloucestershire at the head of the forces of his earldom.58 They demanded among other things the delivery into their hands of the Frenchmen in the castle. 4 Against them were arrayed the forces of Northumbria and Mercia under Siward and Leofric. At the instance of Leofric the Witan was adjourned to London, where it met on 29 September. There, or earlier at Gloucester, the outlawry of Swegen was renewed, and was shortly followed by that of Godwin and his family.55 The whole party was driven into exile.

Herefordshire was now entrusted to King Edward's nephew Ralph, who has already been mentioned. He was the son of the king's sister Godgifu, by her husband Drogo, count of the French Vexin.56 In 1052 Gruffydd ab Llywelyn, the king of Gwynedd, broke his alliance with the English and ravaged Herefordshire.<sup>57</sup> Near Leominster he was met by the levies of the shire, together with the 'Frenchmen of the castle,' but defeated them with great slaughter.58 Very probably Ralph was at this time absent, for in the same year he and Earl Odda were placed in charge of the fleet at Sandwich intended to oppose Godwin's return, but owing to their inactivity they were both superseded later in the year. 59 Ralph was not disturbed in the possession of his earldom by the return of Godwin and his family in September, for Swegen was excepted from the restoration, and remained in exile. There was, however, a general flight of foreigners from the court, some riding west to Pentecost's Castle. 60 According to Florence of Worcester Osbern, whose cognomen was Pentecost, was compelled to surrender his castle, and with his ally Hugo was then allowed to proceed to Scotland under a safe-conduct.<sup>61</sup> As has been already stated Pentecost's Castle was probably identical with Ewyas Harold. There are two points in favour of the identification. After the Conquest William Fitzosbern repaired a previous castle at that place,62 and Alured of Marlborough, who held Ewyas Harold in the time of Domesday, had an uncle named Osbern, who is recorded in Domesday as having held lands in the neighbourhood when Godwin and Harold were exiled. Freeman's identification of Pentecost with Osbern son of Richard Scrupe may be rejected. Osbern

<sup>61</sup> J. H. Round, Feud. Engl. 324.
52 On this question see Round, Geoffrey de Mandeville, 328-46; Arch. lviii, 313-40.
54 Ibid. i, 314.

<sup>53</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 315.
54 Ibid. i, 314.
55 Ibid. i, 314, 316; Flor. Chron. i, 205-6.
56 Orderic Vitalis, Hist. Eccles. (Soc. de l'Hist. de France), iii, 224; Will. of Malmesbury, Gesta Regum (Rolls Ser.), 241; cf. J. H. Round's Peerage Studies, 148-9. <sup>57</sup> The first mention of the shire in the Chron.

he first mention of the since in the Grow.

Sangl.-Sax. Chron. (Rolls Ser.), i, 316; Flor. Worc. Chron. i, 207.

Magl.-Sax. Chron. (Rolls Ser.), i, 317.

Morc. Chron. i, 207.

Bi Flor. Worc. Chron. (ed. Thorpe), i, 210.

Bi Domesday (Rec. Com.), i, 186.

Morc. Chron. i, 207.

Bi Flor. Worc. Chron. (ed. Thorpe), i, 210.

Bi Ibid.; cf. Round, Peerage Studies, 156.

Pentecost was exiled, while Osbern son of Richard Scrupe in 1060 held office in the shire, probably as sheriff.64

In 1055 the Welsh ravages of 1052 were repeated on a larger scale. Ælfgar, the son of Leofric and earl of the East Angles, was banished at the meeting of the Witan in March. After raising a force in Ireland he made an alliance with Gruffydd ab Llywelyn, who had recently overthrown and slain his rival Gruffydd ab Rhydderch. 65 Together they marched on Herefordshire and harried the country. The effect of the Welsh ravages in Edward's reign was still felt in the time of Domesday.66 Two miles from the city of Hereford Gruffydd and Ælfgar were met by Earl Ralph on 24 October at the head of a large force of English and Normans. According to Florence of Worcester Ralph was ill-advised enough to order the English part of his force to follow the Norman practice of fighting on horseback. When battle was joined Ralph and his followers set the example of flight, which was followed by the entire force mounted on horses untrained to war. A great slaughter was made, four or five hundred men falling in the rout. The city was plundered, the minster of St. Ethelbert burned, shortly after its erection by Bishop Ethelstan to commemorate the martyrdom of the East Anglian king by Offa, and its store of relics and vestments carried away. A rash attempt on the part of seven canons to defend the great door of the church only led to their own death and increased the fury of the Welsh and Irish levies. The Welsh account adds that Gruffydd destroyed the citadel as well as the town, and Freeman in consequence conjectures that the Normans had erected a castle in the cathedral town also, but this is unlikely: a Norman fortress would not have fallen so easily before an undisciplined and transient assault.67 From this time Ralph's name ceases to appear in connexion with the history of the shire.

The greatness of the disaster called for the interposition of the central government. Earl Harold, having gathered from 'very near all England' a force which mustered at Gloucester, pitched his camp in 'Stradel' within the Welsh borders.68 Gruffydd and Ælfgar shunned an encounter with this formidable host, and retreated into South Wales. Harold did not pursue them, but fortified Hereford, first with a ditch and rampart (vallum), and afterwards with a stone wall (murus).69 The conclusion of peace with Ælfgar at Billingsley in Shropshire 70 afforded no relief to the harassed men of Here-In the following year Gruffydd repeated his inroad, this time in company with a Scandinavian chief known as Magnus, son of Harold. Ethelstan, the aged bishop of Hereford, had died at Bosbury earlier in the year, and his successor, Leofgar, led his forces against the invaders. 17 June, 1056, another disaster was experienced at Claftbyrig.<sup>n</sup> Leofgar was

70 Angl.-Sax. Chron. (Rolls Ser.), i, 324-6; Flor. Worc. Chron. i, 214. 71 Perhaps Cleobury.

<sup>64</sup> Cod. Dipl. No. 833; Ellis, Introduction to Domesday, i, 460; cf. Freeman, Norman Conquest (1877), ii,

<sup>352.

65</sup> Ann. Camb. 1055; Brut y Tywysogion (1054).

66 Domesday (Rec. Com.), i, 181.

67 Angl.-Sax. Chron. (Rolls Ser.), i, 324, 325; Flor. Worc. Chron. i, 212-3; Brut y Tywysogion (1054),

68 In Domesday Straddele is included in Heref.; Domesday (Rec. Com.), i, 181. It has been identified with

68 In Domesday Straddele is included in Heref.; Domesday (Rec. Com.), i, 181. It has been identified with

the Golden Valley, Arch. Cambr. (Ser. 3), xiii, 299, xv, 412 (Ser. 4), xiii, 32.

69 Domesday (Rec. Com.), i, 179; cf. Florence, i, 214, 'Herefordam rediens, vallo lato et alto illam cinxit, portis et seris munivit.' Freeman conjectures that the more elaborate fortifications were erected when Harold was earl of the shire, Norman Conquest, ii, 402.

slain, and his priests with him, and Ælnoth the sheriff.72 No new bishop was appointed, and the diocese was placed under the administration of Ealdred, bishop of the neighbouring see of Worcester. Through the intervention of Ealdred and Earls Leofric and Harold a peace was concluded between Gruffydd and King Edward, which secured for Herefordshire a respite from attack.78

On 21 December, 1057, Earl Ralph died,74 and Harold added Herefordshire to his West Saxon earldom.75 Ralph left a son Harold, of tender years, whose name probably is still preserved in that of Ewyas Harold,76 but it was impossible to entrust the care of a Welsh border district to a child. Moreover, the events of 1055 and 1056 had clearly indicated that Herefordshire was too weak to form a separate administrative province: it was imperative to incorporate it with one of the great earldoms—Mercia or Wessex. But in Mercia Ælfgar had succeeded his father Leofric a few months before, and it would have been extremely impolitic on the part of the central government to entrust the great border shire to the former ally of Gruffydd, with whom he still remained on friendly terms, and to whom, either during his former banishment or afterwards, he married his daughter Aldgyth. shire was therefore bestowed on its former deliverer, the man in England best able to protect it.

For five years Herefordshire enjoyed a respite from the assaults of Gruffydd, and though it probably suffered from his renewed devastations in 1062, it was terribly avenged by Harold in the following year, when by attacking the Welsh by sea as well as by land he compelled them to seek pardon by assassinating Gruffydd. In consequence Radnorshire and the adjoining district was added to the earldom on the north-west border of Herefordshire." His conquests also assured to the shire the possession of the districts beyond the Wye-Stradel and Archenfield-which belonged to it at the time of Domesday.78

The first effect on the west of England of the Norman victory near Hastings in 1066 was one of disintegration. Herefordshire was left without a ruler; but the Conqueror quickly appreciated the strategic importance of Hereford in relation to Wales. The city commanded the approaches to the moorlands and valleys between Plinlimmon and the Black Mountains. Its possession was equally essential for defence and attack. Before March, 1067, he appointed William Fitzosbern earl of Hereford. He was probably not granted the office by written charter, in any case no charter of investiture survives, but there is strong evidence that he received very extensive powers. In a charter of the year 1069 he is styled 'comes palatii,' with clear reference, however, to his post of 'dapifer' at the court of the Norman

<sup>&</sup>lt;sup>72</sup> Angl.-Sax. Chron. (Rolls Ser.), i, 326; Flor. Worc. Chron. i, 214-5; Brut y Tywysogion 1056; Ann.

<sup>78</sup> Angl.-Sax. Chron. (Rolls Ser.); Flor. Worc. Chron. ut supra.
74 Angl.-Sax. Chron. (Rolls Ser.), i, 328.

<sup>75</sup> Cod. Dipl. Nos. 833, 867; cf. Freeman, Norman Conquest, ii, 425, 578.

<sup>76</sup> Ibid. ii, 683-5.
77 Domesday (Rec. Com.), i, 181. Freeman would add more extensive acquisitions (Norman Conquest (1877), ii, 708-10), but adduces no positive evidence, while the negative evidence of Domesday points to these being made after the Conquest. Except in the Radnor district there is no mention of lands formerly held by Harold or T.R.E.

78 Domesday (Rec. Com.), i, 180b, 181, 185b.

duke.79 He had considerable legislative authority, under which he modelled the customs of Hereford upon those of his French town of Breteuil,80 and enacted that the French burgesses settled in the city should be purged from all transgressions on payment of a fine of twelve pence, except from three reserved offences.<sup>81</sup> There is also strong reason, as will be shown later, 82 for assuming that he received the whole of the revenues of his earldom, and not merely the third pennies of the city and county. As Domesday Survey was taken after the forfeiture of the earldom it is impossible to ascertain the extent of the crown lands or the number of tenants in chief in his time. But on the whole the evidence shows that Herefordshire should be included among the palatine earldoms, and its important frontier position supports this conclusion. Like most of the great Norman lords, Fitzosbern had a large military retinue, whom he attracted to him by liberal pay, and in whose favour he employed his legislative powers in limiting the pecuniary penalties incurred by misconduct to a fine of seven shillings.88 Fitzosbern's appointment in March, 1067, as joint viceroy during William's absence prevented him at first from paying particular attention to the affairs of the shire, where the great opponent of the Normans was Edric the Wild, nephew of Edric Streona, a powerful thegn, who held lands in Herefordshire and Shropshire. On his refusal to submit, the castlemen of Hereford and Richard Scrupe wasted his lands,84 but in return he allied himself with the Welsh kings, Bleddyn and Rhiwallon, Gruffydd's successors, and in August devastated the country as far as the Lugg, returning with a mighty booty.85 In consequence Earl William hastened to guard the frontier. his capacity of viceroy charged particularly to secure the north and west he was instructed to erect 'castella'86 to establish his hold on the country. It is probable that these early structures were 'hillocks of earth, generally round, sometimes oval, and occasionally square, surrounded by a ditch, and crowned by a wooden stockade and a wooden tower.' 87 Such would naturally be the character of defences erected in the face of imminent danger when there was no leisure for more permanent structures. At what time they were replaced by stone buildings is uncertain, but it must be remembered that the Normans were conversant with the art of building in stone, and it is difficult to believe that wooden edifices would have been capable of enduring the long sieges that marked the reigns of Rufus, Henry I, and Stephen.

In Hereford itself Earl William established a castle and garrison,88 the castle being the successor of the fortress destroyed by the Welsh in 1055. Three border castles in the county also owe their undoubted origin to him. In the north-west commanding the valley of the Teme and guarding the plains of Herefordshire from attack from that quarter, he built the castle of Wigmore on land called Merestone that had already been devastated.89 In

<sup>79</sup> Cart. de l'Abbaye de la Ste. Trinité du Mont de Rouen, in Collections des Cart. de France (1840), iii, 455.

<sup>80</sup> Miss Bateson in Engl. Hist. Rev. (1900), 302-6; cf. Richard Johnson, Customs of Heref. (1882).

<sup>81</sup> Domesdan (Rec. Com.). i. 179.

<sup>83</sup> Will. of Malmesbury, Gesta Regum (Rolls Ser.), ii, 314.

<sup>84</sup> Flor. Worc. Chron. (ed. Thorpe), ii, 1; Angl.-Sax. Chron. (Rolls Ser.), i, 340.
85 Flor. Worc. Chron. ii, 1-2.
86 Flor. Worc. Chron. ii, 1; Angl.-Sax. Chron. (Rolls Ser.), i, 339. 85 Flor. Worc. Chron. ii, 1-2.
86 Flor. Worc. Chron. ii, 1; Angl.-Sax. Chron. (Rolls Ser.), i, 339.
87 See Mrs. Armitage on Early Norman Castles in England in Engl. Hist. Rev. (1904), 209-45, 417-55; and Mr. J. H. Round in Archaeologia, lviii, 313-40. 86 Flor. Worc. Chron. ii, I. 89 Domesday (Rec. Com.), i, 183 b.

the extreme west of the county on the southern bank of the Wye, where the valley narrows between the Black Mountains and the hills of Radnor, he built Clifford Castle on devastated ground, shielding the shire from attack from the west, and granted it to Ralph de Todeni, whose daughter Margaret brought it by marriage to Walter de Clifford, Fair Rosamond's father. Although it was within the shire it was not placed in a hundred nor subjected to custom. Of At Ewyas Harold he rebuilt a former fortification, Probably identical with Pentecost's Castle of 1052. It secured the country to the south-west, closing the entrance from Monmouthshire and Glamorgan. Before 1086 there existed also a fortified house at Eardisley, some five miles north-west of Clifford, in the possession of Roger de Lacy, while Overton Castle, in the parish of Richard's Castle, on the Shropshire border, may, like Wigmore, indicate a fortress erected to check the ravages and control the power of Edric the Wild, who made his final submission in the summer of 1070.

Earl William, however, once the country was secured behind him by the campaigns of the Conqueror, was no longer content to act on the defensive, but began in earnest the conquest of South Wales, ably supported by Walter de Lacy. His sphere of action and authority extended from the boundary of Shropshire to the shores of the Severn. In 1070 he slew Maredudd ab Owain, who had risen to power in Deheubarth after Rhiwallon had fallen in battle in 1068. He extended the confines of his earldom into Wales. At the junction of the Monnow and the Wye he built Monmouth Castle, hill while at the time of Domesday Caerleon Castle was also included in Herefordshire, with that part of Monmouthshire between the Wye and the Usk, besides Radnor in mid-Wales. In this warfare the men of Archenfield were especially renowned as warriors, and had the privilege of forming the van in advance, and the rear in retreat.

The whole of the conquests recorded in Domesday ought not, however, to be ascribed to Earl William, for towards the close of 1070 he was sent to Normandy to assist Matilda in the government of the province, and early in 1071 he was slain in battle in Flanders. He was succeeded in his earldom and English estates by his younger son, Roger de Breteuil, to whom William of Malmesbury gives a bad character.98 He and Ralph Guader, earl of Norfolk, were the leaders in 1075 of the first revolt of the Norman garrison in England against the central government. The complicity of Waltheof made the rebellion particularly dangerous. One of the grievances of Roger is of great interest. He resented the sheriffs holding pleas upon his lands, a fact which may bear on the character of his father's earldom. William ordered the sheriffs to desist until he should be able after his return from Normandy to decide the questions at issue.99 After the bride-ale at Norwich, where, contrary to the king's mandate, Roger married his sister Emma to the earl of Norfolk, he returned to his earldom and rose in revolt. He was supported by his military retainers, but he could not gain the fyrd. On the contrary, the forces of the diocese of Worcester under Wulfstan the bishop, Ethelwig abbot of Evesham, and Urse the sheriff of Worcestershire,

<sup>99</sup> Lanfranc to Roger, Lanfranci Opera Omnia (ed. Giles, 1844), i, 64.

<sup>90 &#</sup>x27;Non subjacet alicui hundret neque in consuetudine,' *Domesday* (Rec. Com.), i, 183a.
92 Ibid. i. 184b.
93 Ibid. 186b.

<sup>&</sup>lt;sup>94</sup> Ord. Vit. *Hist. Eccles.* (Soc. de l'Hist. de France), ii, 218–19.
<sup>95</sup> Ibid. i, 1806, 181, 1856.
<sup>97</sup> Ibid. i, 179.
<sup>98</sup> Gesta Regum, iii, 255.

not only prevented Roger from crossing the Severn, but succeeded in taking him prisoner. The punishment of his treason at the king's court at Christmas was the forfeiture of his lands and perpetual imprisonment. The earldom was retained in the king's hands. 101

The forfeiture of Roger was the occasion of the aggrandizement of several families of lesser rank which had remained loyal. The old tale of local jealousies, which almost always gave the king a party among the lesser landowners against a territorial magnate, was once more repeated. Most of the gain in influence and position fell to two famous families, those of Lacy and Mortimer. Walter de Lacy, who held lands in the border district of Ewyas and in other parts of Herefordshire, as well as at Stanton Lacy in Shropshire, assisted in crushing Roger's rebellion and profited by his action. He died in 1085, but at the time of Domesday his son Roger held lands in Berkshire, Gloucestershire, Worcestershire, and Shropshire, as well as in Herefordshire.<sup>102</sup> Ralph de Mortimer, who took his name from the castle of Mortemer-en-Brai in the Pays de Caux, did good service against Edric the Wild under William Fitzosbern. 103 Although he did not acquire Wigmore itself from Edric, as is stated in Fundationis Historia of Wigmore, yet at the time of Domesday he held several estates that formerly had belonged to Edric. 104 To these were added further grants from the forfeited possessions of Roger, including the castle of Wigmore, long the seat of his family.105 At the time of Domesday he held lands in eleven counties.106

With an increase in power came a change in the attitude of these families towards the crown. In 1088, influenced partly by reluctance to see Normandy and England under different overlords, they joined the general rising of Norman magnates against Rufus and seized on the city of Here-They were supported by Osbern, son of Richard Scrupe and lord of Overton Castle, and by his son-in-law, Bernard of Neufmarché, the conqueror of Brecknock. These leaders were followed by the whole of the shire, as well as by the men of Shropshire and many from Wales. Evidently the royal administration had not been popular. The whole force marched on Worcester, harried the shire, but failed to take the city. For the second time Wulfstan rolled back the tide of revolt. The defenders of Worcester defeated their assailants with great slaughter and the capture of many prisoners.<sup>107</sup> Roger de Lacy, however, shared in the general amnesty which was granted by Rufus to the principal rebels. He did not long profit from this leniency, for in 1095 he was involved in Robert Mowbray's conspiracy. At the meeting of the king's council at Salisbury in January, 1095-6, he was banished and his possessions bestowed on his younger brother, Hugh. 108

On Hugh's death, without male heirs, part of his estates was granted by

Ser.), 31.

101 For an account of Roger's descendants see Mr. J. H. Round's Family of Ballon in his Studies in Peerage and Family History (1901).

103 Ellis, General Introduction to Domesday, i, 442.
104 Domesday (Rec. Com.), i, 183b.
105 Ibid.
106 Ellis, Gen. Introd. to Domesday, i, 455-6.
107 Flor. Worc. Chron. ii, 24-6; Angl.-Sax. Chron. (Rolls Ser.), i, 357; Ord. Vit. Hist. Eccles. (Soc. de

108 Ord. Vit. Hist. Eccles. (Soc. de l'Hist. de France), iii, 411.

<sup>100</sup> William of Malmesbury ut supra; William of Jumièges, Hist. vii, 25; viii, 13; Angl.-Sax. Chron. (Rolls Ser.), i, 348, 349; Flor. Worc. Chron. ii, 10-12; Ord. Vit. Hist. Eccles. 534-5; Annales de Winton. (Rolls Ser.), 31.

<sup>107</sup> Flor. Worc. Chron. ii, 24-6; Angl.-Sax. Chron. (Rolls Ser.), i, 357; Ord. Vit. Hist. Eccles. (Soc. de l'Hist. de France), ii, 270-1, Simeon of Durham, Opera (Rolls Ser.), ii, 214-15; Henry of Huntingdon, Hist. Angl. (Rolls Ser.), 214-15.

Henry I to Pain FitzJohn, lord of Ewyas Harold, while part, including the castle of Ewyas Lacy, now Longtown, was granted to Joce de Dinan, afterwards an adherent of the Empress Matilda, but recovered about 1154 by Hugh de Lacy's sister's son Gilbert, founder of the second and greater house of Lacy. 109 Pain FitzJohn, under the Conqueror's system of administering the counties in pairs, was sheriff both of Shropshire and Herefordshire in the time of Henry I. Together with Miles of Gloucester, who held Gloucestershire and Staffordshire, 110 and who acquired the possessions of Bernard of Neufmarché by marrying his daughter Sibyl, he administered the country from the Severn to the sea.111 He and Miles were among the earliest supporters of Stephen among the magnates.<sup>112</sup>

But on the death of Henry the uncertainty in regard to the succession relaxed the vigour of the administration, and the Welsh began to gain the upper hand in the Marches. In July, 1137, Pain FitzJohn was slain while endeavouring to repel their aggressions. 113 As Stephen could give the Marcher lords no adequate support the whole of the district became disaffected. Early in 1138 Geoffrey Talbot garrisoned Hereford on behalf of Matilda.114 Stephen promptly marched on the city, the siege of which occupied him for four or five weeks. At the end of that time the garrison surrendered and were allowed to depart. But during the siege the part of the town below the bridge of the Wye was burnt, and on 15 June, the day of Stephen's departure, Geoffrey burned the suburb beyond the Wye. 116 At the same time Stephen also reduced the castle of Weobley, built since the time of Domesday, which had likewise been seized by Talbot, 116 placing garrisons in both fortresses. The open declaration of Robert of Gloucester for Matilda in 1138, and the landing of the empress herself in the following year, were followed by the secession from Stephen of the greater part of Western England. Miles of Gloucester joined Matilda's party, routed Stephen's men at Wallingford, and seized the royal castles in Gloucestershire and Herefordshire.117 The city of Hereford was gained without difficulty, but the castle held out, and towards the close of 1139 was besieged by Miles of Gloucester and Geoffrey Talbot, who caused great scandal by disinterring the bodies of the dead when making a trench in the churchyard and by placing their balistae in the bell-tower of the minster. advanced to Little Hereford, near Leominster, in the hope of relieving the garrison, but was forced to retire without success. 118

In 1140, or late in 1139, Stephen made a regrant 119 of the town and castle of Hereford and of the whole earldom of Herefordshire 120 to his

<sup>109</sup> Eyton, Antiq. of Shrops. v, 238-41; cf. Arch. Cambr. (Ser. 3), xv, 41.

<sup>110</sup> Pipe R. of 31 Hen. I (Rec. Com.), 72, 76. For a discussion regarding the exact character of their office and of the distinction between vicecomes and custos see Round, Geoffrey de Mandeville, 297-8.

<sup>111</sup> Gesta Stephani (Rolls Ser.), 16.

<sup>112</sup> See Chart. to Miles in Lansd. MSS. 229, fol. 110; 259, fol. 66, printed in Round, Geoffrey de Mandeville, 11.

<sup>113</sup> Cont. Flor. Worc. (ed. Thorpe), ii, 98; Gesta Stephani, 16.

<sup>114</sup> Cont. Flor. Worc. ii, 106; Henry of Huntingdon, Hist. Angl. (Rolls Ser.), 261; Ord. Vit. Hist. Eccles. (Soc. de l'Hist. de France), v, 110. 116 Ibid.

<sup>115</sup> Cont. Flor. Worc. ii, 106.

<sup>118</sup> Will. Malms. Gesta Regum, ii, 557; Gesta Stephani, 68-9. 117 Gesta Stephani (Rolls Ser.), 57-60.

<sup>119 &#</sup>x27;Sciatis me redidisse hereditarie,' &c. 120 'Comitatum de Herefordscyre': 'comitatus' must be rendered earldom, and not county; otherwise the phrase is redundant. 'Comitatus' expresses the office; 'scyre,' the territory.

supporter Robert de Beaumont, earl of Leicester, whose wife Amicia was the granddaughter of William Fitzosbern. He granted De Beaumont to hold the town, castle, and county as freely as William Fitzosbern had done. There was no reservation of any of the revenue from the city or the pleas of the county for the crown. This, together with the judicial immunity enjoyed by William Fitzosbern, gave the earldom a palatine character. The fiefs of four great tenants in chief were, however, expressly excepted from his grant, those, namely, of Hugh de Mortimer, Osbert Fitzhugh, William de Braose, and that of Gotso or Joce de Dinan, which had formerly belonged to Hugh de Lacy, with the provision that if the earl of Leicester could accomplish against Joce what he wished, Joce should hold his fiefs from him. Joce, it may be noted, was at this time holding Ludlow Castle for the empress. 121 De Beaumont, however, never entered into possession, and on 25 July, 1141, Matilda created 192 Miles of Gloucester earl of Hereford in reward for his services to her cause. In his case the earldom was a new creation without palatine powers. He was granted the third penny of the revenue of the borough of Hereford and the third penny of the pleas of the whole county. He received the mote of Hereford, with the castle and the three royal manors of Marden, Lugwardine, and Wilton. 123

Miles's office was not an easy one. In 1143, being in want of money for his troops, he demanded large sums from the church lands. He was resisted by Robert of Bethune, bishop of Hereford. When the earl invaded his lands the bishop excommunicated him and his followers and laid the diocese under an interdict. 124 A little later, on Christmas Eve, Miles was accidentally shot with an arrow by a knight while hunting deer. 125 He was succeeded by his son Roger, who on the retirement of the empress in 1148 apparently enjoyed complete independence during the remainder of Stephen's reign. His power in the central Marches was shared by Hugh de Mortimer, who had taken little part in the conflict for the crown. Mortimer's power, however, was rather centred in southern Shropshire, where he held Cleobury and the royal castle of Bridgenorth, than in Herefordshire, though in that county lay his great castle of Wigmore. His relations with the earls of Hereford were far from friendly during Stephen's reign, but the accession of Henry II, who was supported by all the influence of the earl of Gloucester, the greatest magnate of the west, threatened a common danger to their independence, and, in consequence, they allied themselves against him. From Roger were demanded the castles of Hereford and Gloucester. Early in 1155 he was induced by the persuasions of the bishop of Hereford to make his submission and to surrender the two castles to the crown, 126 receiving in return from Henry a grant for himself and his issue of all the fiefs of his father, Miles of Gloucester, and of his maternal grandfather,

<sup>131</sup> The original charter is among the MSS. of the Duchy of Lancaster in the Record Office (Dep. Keeper's Rep. xxxi, App. 2). It has been partially reprinted in Vincent's Discoverie (1622), 237, and in Duncumb's Herefordshire, i, 232. Between them Vincent and Duncumb have reprinted almost the whole charter. See also the 'Genealogy and Armorial Bearings of the earls of Hereford,' by J. R. Planché, in the Journ. Brit. Arch. Assoc. June, 1871.

132 Sciatis me fecisse, &c.

<sup>133</sup> Rymer, Foedera (1816), i, 14; Cont. Flor. Worc. (ed. Thorpe), i, 132; Gesta Stephani (Rolls Ser.), 79-80. 134 Ibid. 101-3.

<sup>195</sup> Ibid. 16, 95, 103; Simeon of Durham, Opera, ii, 315; Brut y Tywysogion (Rolls Ser.), 165. 186 Gervase of Cant. Opera (Rolls Ser.), i, 161-2.

Bernard of Neufmarché, besides considerable demesne lands in Gloucestershire, between the Severn and the Wye. Henry also restored to him the earldom, the mote, and the castle of Hereford, the third penny of the borough and of the pleas of the shire whereof he made him earl, and the three manors of Marden, Lugwardine, and Wilton from the royal demesne.127

In the same year Roger died without issue, and although his brother Walter inherited the family estates and the shrievalties of Herefordshire and Gloucestershire, 128 he did not receive the earldom, which was retained in the hands of the crown, 129 probably because the re-grant in 1155 extended only to Roger's issue. Mortimer was more obdurate, and in the summer the king laid siege to his three castles. After the capture and destruction of Cleobury he made his peace by yielding up Bridgenorth and Wigmore. One of the best indications of the efficiency of Henry's rule is to be found in the peaceful condition of the shire during the remainder of his reign. The king visited Hereford in 1158,131 but this was probably the only occasion when he entered the city during his long reign.

Troubles with the Welsh were, however, not entirely wanting, especially when the sons of Rhys ap Gruffydd became too old to be controlled by their father. Between 1184 and 1186 strife arose between the Welsh and the men of Cheshire and Herefordshire, which was only appeased in 1186 by the intervention of Ranulf de Glanville.182

On 9 October, 1189, the citizens of Hereford received their earliest charter from Richard I, binding them to pay yearly rent of forty pounds sterling for the ferm of the city. 183 A more extensive charter was subsequently granted by John on 10 July, 1215, and others by Henry III on 23 March, 1226-7, and 23 February, 1264-5. On 15 November, 1383, the chief bailiff was granted the rank and title of mayor. 184

During the absence of Richard I on crusade, the country was divided by the strife between William of Longchamp, bishop of Ely, and Prince John. In 1191, when hostilities broke out between them, Roger de Mortimer of Wigmore, who had succeeded his father Hugh in 1181, allied himself with the Welsh on John's behalf. But Longchamp promptly attacked Wigmore, forced Mortimer to yield the fortress, and banished him from England for three years. 185 On the overthrow of Longchamp in the same year Hereford was one of the three places he was allowed to retain in his hands. 136 1197 it was secured for the king by Hubert Walter.187

Since the re-establishment of the central government by Henry II the distinction between the administrative shire and the Marcher districts in its western border had become well defined. Geographically the shire included the lordships of Wigmore and Lugharness in the north-west, those of Clifford,

<sup>127</sup> This charter is recapitulated in that granted to Henry de Bohun by John. See Rot. Chart. (Rec. Com.),

<sup>1, 53.

128</sup> Pipe R. 1155-8 (Rec. Com.), 48, 50.

129 Robert of Tor
130 Ibid; cf. William of Newburgh, Hist. Rer. Angl. (Rolls Ser.), i, 105. 129 Robert of Torigni, Chron. (Rolls Ser.), 185.

<sup>&</sup>lt;sup>131</sup> Eyton, Court, Household and Itinerary of Hen. II (1878), 37.
<sup>132</sup> Benedict Abbas, Gesta Regis Henrici II (Rolls Ser.), 355-6.

<sup>133</sup> Printed in Richard Johnson's Ancient Customs of Heref. (1882), 48. 134 Ibid. 49-56. 135 Richard of Devizes, De Rebus Gestis (Rolls Ser.), 407.

<sup>136</sup> Giraldus Cambrensis, Opera (Rolls Ser.), iv, 406; Ralph de Diceto, Opera Hist. (Rolls Ser.), ii, 100. 137 Chron. Rog. Hoveden (Rolls Ser.), iv, 35.

Winforton, Stapleton, Eardisley, Whitney, and Huntington in the west, that of Ewyas Harold on the south-west. But the power of the sheriff extended over none of these districts, nor were they organized in hundreds. In 1199 the sheriff, when ordered by the Curia Regis to take possession of Bredwardine Castle on the Wye, protested his inability, it being outside his bailiwick. William de Braose, in whose land it lay, declared that neither king, sheriff, nor justice had any right to enter his liberty. 139

The history of Herefordshire in the thirteenth and early fourteenth centuries forms part of the history of a group of great feudatories swayed by two powerful, but opposite, influences, which alternately obtained the ascendency—jealousy of the royal authority and desire for the support of the crown against the Welsh princes. The accession of John was followed by the revival of the earldom of Hereford, which was bestowed on Henry de Bohun, hereditary constable of England. Henry's grandfather, Humphrey de Bohun, had inherited the greater part of the possessions of Miles of Gloucester on the extinction of his male issue, by marrying his eldest daughter Margaret. He had consistently supported Henry II, notably in 1173, when he assisted to defeat and capture the earl of Leicester at Fornham in Suffolk, 141 and his grandson was rewarded for the loyalty of his family on 28 April, 1200, by a charter granting him £20 yearly from the third penny of the county of Hereford, thereby making him earl thereof, on condition that if King John should have any heir by his wedded wife, Henry de Bohun should claim nothing by the charter which Henry II gave to Roger of Gloucester. Roger's charter, it was stipulated, should remain in the custody of the bishop of Winchester to be destroyed if such heir should be born. The reason for this stipulation was that Henry II's charter had granted to Roger lands which since had been bestowed on the earls of Gloucester, and that John was married to Isabel, daughter and coheiress of William, the last earl of the first house of Gloucester. In addition Bohun was not entrusted with the custody of the castle of Hereford, which remained with the crown.

John visited Hereford in November, 1200.<sup>143</sup> A few years later the county was involved in the quarrel between him and William de Braose the younger, whose mother Bertha, younger daughter of Miles of Gloucester, had brought him the vast Welsh dominions of her grandfather, Bernard of Neufmarché. In the reign of Richard I he was sheriff of Herefordshire from 1191 to 1198, and again in 1199, <sup>144</sup> after John's accession. He became involved in a financial quarrel with the king, and in November, 1207, was compelled to resort to the king at Hereford and to surrender his castles of Hay, Brecknock, and Radnor. At a later date he endeavoured to regain them by surprise, and failing in his attempt stormed and sacked Leominster. <sup>145</sup> But this insurrection was promptly suppressed by the sheriff Gerard de Atyes,

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<sup>&</sup>lt;sup>138</sup> The boundaries were ascertained in an inquisition made in the time of Hen. III, printed with some variations in *Arch. Cambr.* (ser. 4), x, 303-4; and in M. G. Watkins, *Cont. of Duncumb's Hist. of Heref.*, *Hundred of Hunt.* 2.

<sup>139</sup> Eyton, Antiq. of Shrops. i, 235.
140 Liber Niger (1771), i, 167.
141 Benedict Abbas, Gesta (Rolls Ser.), i, 61-2.
142 The original of De Bohun's charter is in the Record Office; see Dep. Keeper's Rep. xxxi, 6, printed in Rot. Chart. (Rec. Com.), i, 53.

<sup>143</sup> Hardy, Itinerary (Rec. Com.).
144 Lists and Indexes (P.R.O.), ix, 59.
145 See 'Littera Regis Angliae, quâ ordine narratur quam male se gesserat Willielmus de Breosa,' printed in Foedera (1816), i, 107-8.

who, about Michaelmas, 1208, compelled de Braose to flee to Ireland and seized his estates for the king.146

In the struggle which occupied the later part of John's reign and which had among its results the granting of Magna Carta, the earl of Hereford was amongst those who opposed the king. He was one of the nobles who assembled at Stamford in Easter week, 1215,147 to enforce their demands by an armed demonstration, and was one of the twenty-five barons appointed to ensure the observance of the charter. 148 When the strife broke out again in September, Hereford opposed the king,149 and with his party invited Louis, the son of the French king, to assume the crown. With the other leaders of the party he was excommunicated by name by Innocent III in January, 1216.160 Remaining attached to Louis's party after John's death he was taken prisoner at the battle of Lincoln on 20 May, 1217, 151 but enjoyed the benefit of the general amnesty at the Treaty of Lambeth on 11 September.

Although the Marcher lords had joined the general confederacy against John, a great political change began to make the support of the crown necessary to them even before his death. This was the revival of the Welsh power under Llywelyn ab Iorwerth, largely in consequence of dissensions in England. After gaining complete possession of North Wales by reducing the royal castles, Llywelyn, in 1215, when the barons were marching from Stamford on London, took Shrewsbury in conjunction with the bishop of Hereford, Giles de Braose, head of his great house since the death of his father William de Braose in exile. Llywelyn was then in alliance with the barons, and clauses in his interest were inserted in the Articles of the Barons and in Magna Carta (arts. 56-8), but in reality nothing could be less pleasing to the Marchers than the establishment of a strong Welsh state. By the end of the year Llywelyn had captured all the great castles of South Wales from the borders of Pembrokeshire to the confines of the earl of Gloucester's lordship of Glamorgan, and in the following year he occupied Upper Powys. Appalled by the prospect of a united Wales, Reginald de Braose, who had succeeded to the family possessions on 26 May, 1216,168 reconciled himself with the central government. In the meantime towards the end of July John himself retreated before Louis of France from Corfe to the neighbourhood of Hereford, making the city his head quarters from 24 to 31 July and remaining in the valleys of the Severn and Wye for about a month, ravaging and destroying, and endeavouring without success to form a league of Welsh princes. 164 exercised no permanent influence on the situation, and in 1217 Llywelyn attacked Brecknock and forced De Braose to make his submission. 166 But when later in the same year the Treaty of Lambeth put an end for the time to the civil war in England, Llywelyn was wise enough to desist from

<sup>146</sup> Roger of Wendover, Flores Hist. (Rolls Ser.), ii, 49; Ann. Wav. (ibid.), 261-2.

<sup>147</sup> Roger of Wendover, op. cit. ii, 114. He appears as 'H. Comes Clarensis'; see Luard's emendation in Matt. Paris, Chron. Maj. (Rolls Ser.), ii, 585 note.

<sup>148</sup> Matt. Paris, Chron. Maj. (Rolls Ser.), ii, 604; cf. Rot. Litt. Claus. (Rec. Com.), i, 115b, 200a, 216b; Dugdale, Baronage, i, 180.

<sup>149</sup> Walter of Coventry, Memoriale (Rolls Ser.), ii, 225.

<sup>150</sup> Matt. Paris, Chron. Maj. (Rolls Ser.), ii, 643.

<sup>Ibid. iii, 22; Ann. Wav. (Rolls Ser.), 287.
Stubbs, Select Charters, 294, 303-4.
Brut y Tyewysogion (Rolls Ser.), 293; Hardy, Itinerary of King John (Rec. Com.).</sup> 153 Rot. Pat. 18 John, m. 9.

<sup>155</sup> Brut y Tywysogion (Rolls Ser.), 299-301.

aggression. In March, 1218, he and his chief nobles submitted themselves to their overlord at Worcester. 166

The next twelve years were passed in fitful attacks by Llywelyn varied by pacifications, but in 1231 he renewed his inroads on a greater scale. After ravaging Montgomery and Brecon he overran Gwent, the modern Monmouthshire. Henry III carried on a campaign in person without much success, making Hereford his head quarters. In 1233 the Earl Marshal, Richard Marshal, Earl of Pembroke, whose family had held Goodrich Castle in Herefordshire from within a century of the Conquest, quarrelled with Henry III and allied himself with Llywelyn. He was supported by a Herefordshire magnate, Walter de Clifford, the lord of Clifford Castle.168 In November Henry came to Hereford, which he again made his head quarters for a campaign. He drove Clifford into exile and confiscated his lands, but in January, 1233-4, the Earl Marshal defeated the royal army in Wales, and then in company with Llywelyn burned Shrewsbury. 169 terminated operations for the time. Clifford obtained restitution of his lands in 1235. He was a man of violence, and in 1250 was fined a thousand marks for compelling the king's messenger to eat the royal letters including the wax of the seal.160 In 1235 also the Earl Marshal fell in Ireland, while Llywelyn, perhaps from advancing age, was less aggressive during the six remaining years of his reign.

In the meantime a new cause of strife arose between the Welsh and the Marcher lords. In 1230 William de Braose, only son and heir of Reginald, contemplated alliance with Llywelyn. To further the union he visited that prince in order to arrange a marriage between Llywelyn's son Davydd and his own daughter Isabella. During the visit Llywelyn either detected or invented an intrigue between his wife Joan and De Braose, and caused the Marcher lord to be hanged. Notwithstanding the execution of her father, Isabella, who probably was also in Llywelyn's hands at the time, was married to Davydd. But De Braose had three other daughters, Eleanor, Eva, and Maud, subsequently married respectively to Humphrey eldest son of the second earl of Hereford, William de Cantilupe, and Roger de Mortimer, 161 and his inheritance was eventually divided amongst them to the exclusion of Isabella and Davydd. Davydd, who succeeded Llywelyn in 1240, was particularly incensed against the earl of Hereford and Ralph fifth lord Mortimer of Wigmore, who had secured the whole of Brecon for their sons, De Bohun also obtaining the manors of Hay, Eardisley, and Huntington, now included in the county of Hereford. In 1244 he invaded their territories and inflicted two defeats on the English forces. 162 His death in March, 1246, and the division of Wales between his nephews, Llywelyn and Owain ab Gruffydd, put an end to the danger for a time, and enabled Henry III to conclude a convention on favourable terms. 168

Relieved from their dread of Welsh aggression, Roger Mortimer, who succeeded his father as sixth lord of Wigmore in 1247, and the earl of Hereford began shortly to act in open opposition to the crown.

 <sup>156</sup> Foedera (1816), i, 150.
 167 Roger of Wendover, Flor. Hist. (Rolls Ser.), iii, 11.
 168 Matt. Paris, Chron. Maj. (Rolls Ser.), iii, 247.
 160 Col. Pat. R. 1225-22, PD 277, 208, 427, 428, 424.

<sup>&</sup>lt;sup>161</sup> Cal. Pat. R. 1225-32, pp. 377, 398, 427, 428, 434.

<sup>162</sup> Matt. Paris, Chron. Maj. (Rolls Ser.), iv, 358, 385-6.

<sup>163</sup> Foedera (1816), i, 267.

Humphrey de Bohun, second earl of Hereford, succeeded his father, Henry, in 1220, and later also inherited the earldom of Essex, through his mother, Maud, daughter of Geoffrey Fitzpeter. Like his father he attached himself to the party among the baronage desirous of preserving their powers and privileges against the crown. In July, 1227, he joined with the earls of Pembroke, Chester, Gloucester, Warwick, Surrey, and Derby in compelling Henry III to make large provision for his brother Richard, and to restore the forest charters.<sup>164</sup> In 1252 he defended Simon de Montfort's administration in Gascony.<sup>165</sup> In 1254, when himself serving in Gascony, he bitterly resented the action of the king's half-brothers and of Peter, the Savoyard bishop of Hereford, in punishing some of his Welsh troops for plundering without referring the matter to him. This he regarded as derogatory to his rights as Constable of England. 166 He and Mortimer joined the confederation of the barons in the Parliament held at Oxford in 1258, acting in concert with Gloucester, Leicester, and the Earl Marshal, and they were included in the perpetual council of fifteen appointed to control the executive and in the council of twenty-four. 167 A difference, however, soon showed itself between Leicester, who desired to reform the central administration, and Gloucester, who aimed at securing the privileges of the greater baronage by paralysing it. His thorough policy of disintegration did not commend itself to the Marchers: the Welsh had again become aggressive, and they did not feel strong enough to withstand them unaided. In 1254 Llywelyn had become sole ruler in Gwynedd, and in 1256 he became embroiled with Prince Edward on the confines of his earldom of Chester, whence the quarrel spread southwards along the Welsh border. These dangers led Hereford to support Leicester, who was at that time on good terms with Edward, against Gloucester, and in 1250 he and the other nobles compelled Gloucester to make overtures. In 1260 he was appointed by the council of fifteen justice itinerant for the counties of Gloucester, Worcester, and Hereford, and in the same year the city of Hereford refused to receive the justices nominated by the king on the ground that their visitation was contrary to the Provisions of Oxford. On 17 July, 1260, Llywelyn captured Builth Castle from Mortimer, and in 1262, in consequence of the alliance between Llywelyn and Leicester, Hereford and Mortimer were acting in concert with the king. The quarrel with Llywelyn was unappeased in spite of the fact that on 24 August Henry III directed Hereford to grant him redress for violations of the truce. On 24 December Henry wrote that he was sending succour against the Welsh, <sup>171</sup> but immediately after Christmas Llywelyn ravaged Mortimer's lands as far as the fortresses of Weobley, Eardisley, and Wigmore. 172 Early in 1263 Hereford, who had commanded the forces on the Welsh border, was superseded by John de Grey 173 on account of the dissensions which had broken out among

169 Nicolas Trevet, Annales (Engl. Hist. Soc.), 248; Chron. Edw. I and Edw. II (Rolls Ser.), i, 57;

Matt. Paris, Chron. Maj. (Rolls Ser.), iii, 124.
 Ibid. v, 442.
 Annals of Burton (Rolls Ser.), 449-50.
 Matt. Paris, Chron. Maj. (Rolls Ser.), v, 744-5.

Rishanger, Chronica (Rolls Scr.), 5.

170 Letters of the Reign of Hen. III (Rolls Ser.), ii, 214, 216.

171 Ibid. ii, 228-9.

Foedera (1816), i, 423; Flores Hist. (Rolls Ser.), ii, 476.

173 Letters of the Reign of Hen. III (Rolls Ser.), ii, 236.

the Marchers, and shortly afterwards Prince Edward himself appeared on the scene and drove Llywelyn back into Gwynedd.<sup>174</sup>

In the same year open hostilities began between the baronage and the king. Leicester took arms in concert with the young earl of Gloucester, and in May succeeded in capturing Hereford, carrying off the bishop, Peter of Aigueblanche, one of the king's Savoyard protégés, and confining him in the castle of Eardisley.<sup>175</sup> In February, 1263-4, his two eldest sons, Henry and Simon, ravaged Mortimer's lands and with the assistance of the Welsh took the castle of Radnor. Prince Edward again made his appearance, and, taking the castles of Hay, Huntington, and Brecknock, handed them over to Mortimer.<sup>176</sup> At this time the house of Bohun was divided, for while the earl of Hereford supported Henry, his son Humphrey sided with Leicester, whom he represented at the Mise of Amiens.<sup>177</sup> At the battle of Lewes on 14 May they fought on opposite sides. Hereford was taken prisoner and his son was wounded.<sup>178</sup> After the battle Leicester marched to the west to overawe the Marchers, who murmured at his autocratic rule. He took the castles of Hereford, Hay, and Ludlow, and for the time enforced submission.<sup>179</sup> But the hard conditions which he imposed produced a breach with the earl of Gloucester, who resented any attempt to coerce the baronage. In April, 1265, Gloucester was openly allied with the Marchers, and Simon returned to Hereford carrying Prince Edward with him for greater security. 28 May Edward escaped, while riding in the meadows outside the walls of the city, and took refuge with Mortimer at Wigmore, 180 where he was joined by the levies of the counties of Hereford, Worcester, Salop, and Chester. 181 In the campaign that ensued Leicester made Hereford his head quarters, 182 cut off as he was from central England by the forces of Gloucester and Edward. He retreated thither after his fruitless attempt to cross the Bristol Channel and reach Bristol, and finally left the city at the beginning of August to be trapped and slain at Evesham, where young Humphrey de Bohun was taken prisoner.<sup>183</sup>

The close of the Barons' War left Herefordshire in a very lawless state. In 1266 Leominster was plundered and burnt by raiders. The families of Bohun and Mortimer were supreme in the county. The earl of Hereford was one of the council appointed in 1266 by the Dictum de Kenilworth. Lord Mortimer of Wigmore held the castle of Hereford by a grant made in 1259, and was sheriff of the county from 1255 to 1257. Another branch of the family had been established at Richard's Castle from the time

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174 Foedera, i, 423; Rishanger, Chronica (Rolls Ser.), 13.
175 Rishanger, Chronica (Rolls Ser.), 17; Flor. Hist. (Rolls Ser.), ii, 479–80; Liber de Antiquis Legibus, 53.
176 Rishanger, Chronica (Rolls Ser.), 13; Flor. Hist. (Rolls Ser.), ii, 486.
177 Foedera (1816), i, 434.
178 Rishanger, Chronica (Rolls Ser.), 27–8; Annals of Dunstable (Rolls Ser.), 232.
179 Trevet, Annales (Engl. Hist. Soc.), 261; Flor. Hist. (Rolls Ser.), ii, 498–9; Rishanger, Chronica (Rolls Ser.), 31.
180 Ibid. 33; Chron. Walt. de Hemingburgh (Engl. Hist. Soc.), i, 320–1; Chron. Edw. I and Edw. II (Rolls Ser.), i, 67–8.
181 Rishanger, Chronica (Rolls Ser.), 34; Trevet, Annales (Engl. Hist. Soc.), 264.
182 Cf. Letters of the Reign of Hen. III (Rolls Ser.), ii, 288.
183 Ann. Wav. (Rolls Ser.), 365; Worcester Annals (Rolls Ser.), 455.
184 G. F. Townsend, Hist. of Leominster, 26.
185 Ann. II'av. (Rolls Ser.), 372; Annals of Dunstable (Rolls Ser.), 243.
186 Rot. Pat. 44 Hen. III, m. 10.
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After Evesham Llywelyn, realizing the danger of carrying on hostilities, concluded a pacification in 1267.189 But both Mortimer and the Bohuns were incensed by his refusal to relinquish the greater part of Brecknock and the territory of Builth. The central government refused to interfere on the ground that Brecknock was not part of the lands which Llywelyn was called on to restore by the treaty of 1267,190 and so the confederates were left to settle the matter for themselves. Llywelyn, however, soon embroiled himself with Edward I over the question of homage, and in 1276 Mortimer, aided by Humphrey, third earl of Hereford, who had succeeded his father in 1274, regained his possessions.<sup>191</sup> On 15 November he was appointed Edward's captain against the Welsh for Shropshire, Staffordshire, Herefordshire, and the adjoining districts. 192 Both Hereford and Mortimer took an active part in the final overthrow of Llywelyn. 193

The conquest of Wales was followed by a dispute between the earls of Gloucester and Hereford over the division of the spoils, which gave Edward I a pretext for interfering in the Marches. In October, 1291, Hereford was imprisoned for contumacy,194 and eventually he was deprived of some of his most valuable Marcher privileges, but in 1297 he had his revenge by joining the Earl Marshal in refusing to accompany Edward to Flanders and in inducing Parliament to insist on the Confirmatio Cartarum prior to the issue of a subsidy.195

Edward I's reign is notable for the final definite settlement of the form of Parliament. Although Herefordshire may have returned two knights of the shire to Parliament at an earlier date, the first instance in which the names of the members have been preserved is 1290.

In 1295 Edward I commenced to summon representatives from the boroughs to his Parliaments. Hereford, Leominster, Weobley, and Ledbury received writs, and the first three again sent burgesses to the Parliament of 1298, and were thereafter fairly constantly represented until 1306, when Weobley ceased to be called on. For the Parliament summoned to meet on 16 February, 1304-5, Bromyard, Ledbury, and Ross also received writs, but this was exceptional, and they and Weobley were released from the obligation on their representation that they were unable to pay their representatives their legal wages, 2s. a day. Until 1628 the county and city of Hereford and the borough of Leominster each returned two members to Parliament. At that date Weobley was again granted the like privilege, and Herefordshire possessed eight members until 1832.196

Humphrey de Bohun, fourth earl of Hereford, who succeeded the third earl in 1298, and in 1302 married Elizabeth, daughter of Edward I, and widow of the count of Holland, joined the great majority of the baronage in opposing Edward II's favourite, Piers Gaveston. The influence of the favourite was felt in Herefordshire, even in the lifetime of Edward I, for on

<sup>198</sup> Dugdale, Baronage, i, 152, 453-4.
190 Reg. Epist. J. Peckham (Rolls Ser.), vol. ii, p. li. 189 Foedera (1816), i, 473.

<sup>191</sup> Brut y Tywysogion (Rolls Ser.), 364. 192 Foedera (1816), i, 537.

Preading of Special Rolls Ser.), 304.

193 Rishanger, Chronica (Rolls Ser.), 105; Osney Annals (Rolls Ser.), 293.

194 Dunstable Annals (Rolls Ser.), 370; Worcester Annals (Rolls Ser.), 506.

195 Eulogium Hist. (Rolls Ser.), iii, 167; Walsingham's Hist. Angl. (Rolls Ser.), i, 66, 69, 71, 75;

Rishanger, Chronica (Rolls Ser.), 173, 178, 180-2; Knighton, Chron. (Rolls Ser.), i, 330-1, 366.

196 W. R. Williams, Parl. Hist. of Hereford (1896).

the death of Edmund, seventh Lord Mortimer, in 1304, his son and heir, Roger, was entrusted to Gaveston's wardship. The young Mortimer, however, emancipated himself by a payment of a fine of 2,500 marks. In 1310 Hereford was one of the lords ordainers. 197 He was present at Gaveston's execution in June, 1312, 198 and was included in the general pardon issued on 16 October, 1313. 199 He declined to follower Lancaster in his extreme and unpatriotic opposition to Edward in regard to Scotland, and in 1314 he was taken prisoner at Bannockburn 200 and exchanged for Elizabeth de Burgh, Bruce's wife. 201 In 1316 he put down Llywelyn Bren's rising in Glamorgan. 202 He was one of the permanent council appointed in 1318; 203 but although with the majority of the Marcher lords he followed the earl of Pembroke in trying to mediate between Lancaster and the king,204 he finally adhered to Lancaster's party, carrying with him the lesser gentry of Herefordshire. About 1320 a dispute arose for the possession of Gower between Hereford and the younger Despenser, who had inherited Glamorgan as part of his share of the Gloucester heritage, and who feared the further growth of Hereford's power in the southern Marches. Despenser invoked the king, as overlord, while Hereford contended that the matter ought to be settled according to the custom of the Marches. The quarrel led to an appeal to arms, in which Hereford was supported by Lord Mortimer of Wigmore and his uncle, Roger de Mortimer of Chirk. 205 They triumphed over the Despensers, and for the time over the king himself, Hereford proclaiming the decree banishing the elder Despenser in Westminster Hall.206 Edward, however, took up arms in support of his authority, advanced to Shrewsbury in January, 1321-2, and forced the Mortimers to submit.207 He crossed the Severn and entered Hereford, where he sharply reproved the bishop, Adam of Orlton, for his treason in siding with the rebels. On 16 March the earl of Hereford was slain at Boroughbridge by Andrew Harclay.<sup>208</sup>

In 1326, when Edward II was finally overthrown by Isabella and Mortimer, his son Prince Edward was proclaimed Lord Warden of England on 20 October by an assembly of nobles at Hereford. On 17 November the earl of Arundel was tried and executed there, and seven days later the younger Despenser. Mortimer had directed the revolution, and he reaped the benefit. On 8 June, 1327, he was appointed chief keeper of the peace in the counties of Hereford, Stafford, and Worcester, and on 29 September, 1328, he was created earl of March. In October, 1330, Edward III overthrew Mortimer, and his attainder and execution in November left his lands at the

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187 Chron. Edw. I and Edw. II (Rolls Ser.), i, 172; ii, 37, 40.

188 Ibid. i, 207; ii, 298; Nic. Trevet Cont. (Engl. Hist. Soc.), 9.

189 Statutes of the Realm (Rec. Com.), i, 169.

200 Eulogium Hist. (Rolls Ser.), iii, 195; Trokelowe, Annals (Rolls Ser.), 85.

201 Ibid. 86; Nic. Trevet Cont. (Engl. Hist. Soc.), 16.

202 Foedera (1816), ii, 283-4; Chron. Edw. I and II (Rolls Ser.), i, 216-18.

203 Foedera, ii, 370; Chron. Edw. I and II (Rolls Ser.), ii, 54.

204 Ibid. ii, 236.

205 Trokelowe, Annals (Rolls Ser.), 107; Capgrave's Chron. (Rolls Ser.), 186-7.

206 Trokelowe, Annals (Rolls Ser.), 110; Chron. Edw. I and II (Rolls Ser.), i, 292-5.

207 Parl. Writs, II, ii, App. 176.

208 Chron. Edw. I and II (Rolls Ser.), ii, 264-9; Polychronicon R. Higden (Rolls Ser.), viii, 312; Trokelowe, Annals (Rolls Ser.), 124, 126; Capgrave's Chron. (Rolls Ser.), 189.

209 Ibid. p. 196; Walsingham's Hist. Angl. (Rolls Ser.), i, 184; Foedera, ii, 646.

210 Chron. Edw. I and II, i, 321; ii, 308, 311.

211 Ibid. i, 319-20; Capgrave's Chron. (Rolls Ser.), 197.
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mercy of the crown. But the bulk of his lands in Herefordshire, including the barony of Wigmore, was restored to his son Edmund in October, 1331.213 Edmund died in January, 1331-2, but his son Roger took a conspicuous part in a tournament held at Hereford in 1344, 214 and in 1354 he was restored to the earldom and to complete possession of his family estates.<sup>215</sup> At this time he was possessed, besides Wigmore, of the manors of Marden and Winforton in Herefordshire, 216 while Wolferlow formed part of his mother's dowry, 217 as well as Pembridge, Kingstone, and Orleton, and half the town and territory of At the time of his death, in 1360, Marcle was also in his possession. His son Edmund, third earl of March, greatly increased his power by his marriage, in 1368, with Philippa, the daughter and heiress of the duke of Clarence, on whose death in the same year he inherited his great possessions. The earl of March joined in the attack on John of Gaunt in 1376, and Sir Peter de la Mare, knight of the shire for Herefordshire, and Speaker of the House of Commons, was his steward, and was probably returned to Parliament by his influence.

In the meantime the great family of Bohun had come to an end. fifth and sixth earls obtained considerable renown in Edward III's wars in Scotland and France. The earldom became extinct in 1373 with the death of Humphrey, the seventh earl. Humphrey left two daughters, Eleanor, who was married to Edward III's sixth son, Thomas of Woodstock, and Mary, married at the age of ten to Henry, earl of Derby, afterwards Henry IV, in the winter of 1380. Through Thomas's daughter, and eventually his sole heiress, Anne, who married Edmund, fifth earl of Stafford, one moiety of the Bohun inheritance descended to the dukes of Buckingham, the other being acquired by the crown on the accession of Henry IV. fifth earl of Stafford at the time of his death at the battle of Shrewsbury in 1403 held the castle of Huntington, near Kington, in Herefordshire. other possessions of the Bohuns in the county devolved upon the house of Lancaster, but the lands of the house of De Braose in Brecknock came to the Staffords, and in 1444 Humphrey Stafford was styled earl of Buckingham, Hereford, Stafford, Northampton, and Perche.<sup>218</sup>

The disintegration of England which had steadily increased during the reign of Edward III, and which Richard II had vainly tried to combat by arbitrary methods, reached its climax in the early years of Henry IV. The decay of the power of the crown peculiarly affected the Welsh borders. 1400 the city of Hereford itself was disturbed by the lawlessness of Thomas Byton and other marauders.<sup>219</sup> The growing turbulence of the Welsh caused the enactment in 1401 that no Welshman should purchase or hold land in the border towns, among which were included Hereford and Leominster.<sup>220</sup> But by the following year Wales was in full revolt under Owen Glendower. In the early summer Sir Edmund Mortimer, uncle of the fifth earl of March, mustered the men of Herefordshire and his own tenants to attack Owen, but he was defeated and captured near Knighton 221 in Radnorshire in the middle

<sup>&</sup>lt;sup>218</sup> Cal. Close R. 1330-3, p. 345-6; Cal. Pat. R. 1330-4, p. 193.
<sup>214</sup> Adam de Murimuth, Cont. Chronic. (Rolls Ser.), 159.
<sup>216</sup> Duødale. Baronage, i, 147.
<sup>217</sup> Ibid. i, 148.

<sup>215</sup> Rot. Parl. ii, 255. <sup>218</sup> Ibid. i, 165.

<sup>&</sup>lt;sup>219</sup> Cal. Pat. R. 1399-1401, pp. 347-8, 413.
<sup>220</sup> Walsingham, Hist. Angl. (Rolls Ser.), ii, 250; Ann. Hen. IV (Rolls Ser.), 341; Proc. of the P.C. (ed. Nicolas), i, 185; Capgrave's Chron. (Rolls Ser.), 279; Trokelowe, Annals (Rolls Ser.), 341.

of June. On 23 July Henry IV himself was in Shropshire preparing for a Welsh campaign. Stores were accumulated in the castle of Hereford, Leominster was to be fortified, and Wigmore was made the centre of the line of defence, the frontier south of that fortress being under the charge of the earl of Stafford, while the northern line was under the care of the earl of Arundel.<sup>222</sup> Operations were interrupted for the time by the irruption of the Scots into Northumberland, which ended in the battle of Homildon Hill, and in November Sir Edmund Mortimer, incensed by Henry's failure to succour him, and by his refusal to allow him to be ransomed, made an alliance with Glendower and married his daughter. In March, 1403, the whole force of Herefordshire was summoned to muster under the Prince of Wales at Shrewsbury, together with the levies of Shropshire, Worcestershire, and Gloucestershire. 223 Richard of Conisbrough, afterwards earl of Cambridge, was stationed at Hereford, and on 9 May wrote to the king's council pressing for payment for his force, which had been under arms since of April. Want of money hampered young Henry's operations. On I July the sheriff of Herefordshire attacked and defeated Welsh raiders in Brecon, inflicting on them a loss of over two hundred and forty men.<sup>224</sup> But directly he retired the Welsh reappeared. On 8 July Richard Kyngeston, archdeacon of Hereford, wrote to the king from Hereford that the country was lost unless he came at once in person.<sup>225</sup> The peril was still further increased by the alliance between Glendower and the Percies, and though the battle of Shrewsbury on 21 July destroyed the earl of Northumberland's power before he could join Glendower, it did nothing to impair the strength of the Welsh chieftain. Towards the close of August communication between Hereford and Abergavenny was dangerous,226 and a few days later the county of Hereford was invaded by more than four hundred men, who swept away men and cattle in spite of the fact that a truce had been concluded. 227

The county was protected from Welsh aggressions by a long line of castles in Brecon and in the Marcher lordships, not then included in the administrative shire. But these castles had been carelessly kept, and early in September circular letters were issued ordering the fortresses to be placed in a state of defence. Within the modern limits of the county were Ewyas Harold under the charge of Lord Bergavenny, Goodrich under Lord Furnival, father-in-law of the owner, John Talbot, afterwards earl of Shrewsbury, Eardisley under Nicholas Montgomery, Ewyas Lacy (now Longtown) under Constance Lady Despenser, Huntington under Anne Lady Stafford, Dorstone under Sir Walter Fitzwalter, and Brampton Bryan under Brian de Brampton. This list only comprises those castles which required to be placed in a state of defence, and for this reason Wigmore, Clifford, and other famous fortresses are not included.

On 11 September, in response to repeated appeals, the king and his victorious army reached Hereford. He remained there until after the 15th, making preparations for reprovisioning the frontier castles, including the two

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Wylie, England under Hen. IV, i, 284-5.
Sheriff of Hereford to Henry IV, 7 July, 1403, Royal Letters, i, 146.
Ellis, Original Letters (Ser. 2), i, 17-9.
William de Beauchamp to Henry IV, 23 Aug. 1403, Royal Letters, i, 152.
Richard Kyngeston to Henry IV, 3 Sept. 1403; ibid. i, 155.
Rymer, Foedera (1709), viii, 328-9.
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outposts of Herefordshire, Clifford and Hay. He then advanced to Carmarthen, returning to Hereford on 3 October, and finally departing for Gloucester on the 6th.<sup>229</sup> Shropshire and Herefordshire had suffered so severely that in the grant made by Parliament in February, 1403-4, the ravaged lands in these counties were specially exempted from payment.<sup>230</sup>

Next summer the invasions of the Welsh recommenced. On 10 June, 1404, the sheriff wrote to the king's council that the Welsh had invaded the district of Archenfield in great numbers, and that they were burning the houses, slaying and capturing the inhabitants, and wasting the country.231 Through spies he learned that the Welsh expected to be in the neighbourhood of Hereford within eight days. Henry, however, was obliged to proceed to Pontefract to receive the submission of the north. The most serious feature of the situation was the danger of the castle of Abergavenny on the River Usk, which was hard pressed. On 9 June, when at Pontefract, Henry issued a commission to the sheriffs of Herefordshire, Worcestershire, Gloucestershire, and Warwickshire to raise their counties and join Richard of Conisbrough, in order to raise the siege.282 On 16 June he authorized Richard Kyngeston to collect the subsidy, and in spite of the appointment by Parliament of war treasurers, 233 to apply it directly for purposes of defence.234 On 25 June Prince Henry wrote to the king from Worcester that he was informed that the Welsh had descended on the county of Hereford, burning and destroying, that they were in great force, and victualled for fifteen days,286 but that his arrival had caused them to retire, though they still remained in large numbers near the borders. But the presence of the Prince of Wales proved effective, for towards the close of August the sheriff and other gentlemen of Herefordshire requested the lords of the council to pray the king that he would be pleased to thank the Prince for the good protection of the county since the Nativity of St. John (24 June), and that the Prince might be assigned to guard the Marches of Herefordshire and Gloucestershire and to make inroads into the southern districts in Welsh hands.<sup>236</sup> quence the Council recommended that the Prince should remain on the borders of the county until the last day of September, and have as many, or more, men at arms and archers as he had had since 29 June, and that on I October he should be ready to make an excursion into Wales, remaining there twenty-one days for the punishment of the rebels.<sup>237</sup> From July onwards his head quarters were generally at Hereford or Leominster. During November he was chiefly occupied with the relief of Coity Castle, in Glamorgan, now known as Oldcastle Bridgend. Towards the close of the year the earl of Arundel, Lord Charlton, and Lord Furnival were appointed to undertake the defence of Herefordshire and Shropshire. 238 Considerable annoyance was caused by the smuggling of supplies to the Welsh over the borders, and on 2 October a commission, consisting of Sir John Oldcastle and others, was charged to stop the traffic on the borders of Herefordshire. On 27 January, 1404-5, Prince Henry wrote from Hereford for reinforcements to enable him

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    Wylie, Engl. under Hen. IV, i, 174-5.
    Proc. of P.C. i, 224.
    Ramsey, Lancaster and York, i, 74; Ann. Hen. IV, 379.
    Rot. Pat. 5 Hen. IV, ii, m. 15, quoted in Wylie, Engl. under Hen. IV, i, 448.
    Proc. of the P.C. i, 230-2.
    Wylie, Engl. under Hen. IV, i, 461-2, 481.
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to cope with the Welsh within the borders of the county,239 but without much The most serious aspect of his position was that the pay of his troops was in arrear. The situation was redeemed in March by a defeat of the Welsh before Grosmont Castle by a small force detached by Prince Henry under Lord Talbot of Archenfield,240 the elder brother of the great earl of Shrewsbury. In consequence the inhabitants of several outlying districts in the Black Forest, the upper valley of the Usk, and the Golden Valley, sent in their submission to the sheriff at Hereford.241 Immediately after this victory Prince Henry was appointed lieutenant of North Wales for a year,242 the duke of York being relieved of his command. On 14 May, 1405, the king himself entered Hereford on his way to Wales and made his head quarters there.243 But on 23 May the news of the rising of Northumberland and Bardolph forced him to hasten north. In his absence the Welsh, aided by French auxiliaries, burst into Herefordshire after capturing Carmarthen, and on his return to Worcester on 22 August he found them ravaging Worcestershire within ten miles of the city. His presence forced them to retire after facing him for eight days at Woodbury Hill. Proclamations dated 24 August called up the forces of ten midland counties to join the muster at Worcester or 'elsewhere in Wales,' and on 29 August the order was given requiring the troops to be at Hereford 'by Friday next' 244 to move forward into Wales. Henry IV entered Hereford in the beginning of September, and on the 10th advanced with his army into Glamorganshire, relieving Coity, but losing heavily on his return. By 29 September he was back in Hereford, and by I October he had retired to Worcester, after an expedition which had accomplished very little. During 1406 the war languished owing to the fact that neither king nor prince was present, but in 1407 the muster was summoned to Hereford for 10 June, and Prince Henry unsuccessfully besieged Aberystwith, making Hereford his base for supplies.246 On 30 October he left Hereford for Gloucester, and did not return until 10 June, 1408, after visiting London. By 29 June he had completed his preparations for again assailing Aberystwith and Harlech, having collected stores of arrows, sulphur, and saltpetre at Hereford.248 Aberystwith was recovered after a determined effort, and Harlech also fell before February, 1408-9. These successes mark the close of effective Welsh resistance, and from this time the war ceased to be carried on on a great scale. to one account Owen Glendower died in obscurity at Monnington, within the county, on 20 September, 1415, and was buried there.247

The county of Hereford was considerably affected by the Lollard movement. Sir John Oldcastle himself was the son of a Herefordshire knight, Sir Richard Oldcastle of Almeley, near Kington. He had some land at Weobley. His uncle, Thomas Oldcastle, had been sheriff of Herefordshire from 18 November, 1386, to 18 November, 1387, and from 21 October,

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239 Cott. MSS. Vesp. F. xiii, No. 16.
240 Ellis, Original Letters (Ser. 2), i, 39-41; Proc. of P.C. i, 248-50.
241 Wylie, Engl. under Hen. IV, ii, 20.
242 Rot. Pat. 6 Hen. IV, pt. ii, m. 29, quoted in Wylie, ii, 170.
243 Wylie, Engl. under Hen. IV, ii, 172.
244 Ibid. ii, 303.
245 Ibid. iii, 107, 112-13.
246 Cal. Rot. Pat. (Rec. Soc.), 275, 277.
248 Cal. Rot. Pat. (Rec. Soc.), 280 b; Inq. p.m. (Rec. Soc.), iv, 124.
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1391, to 18 October, 1392, and he himself held the same office from 5 November, 1406, to 23 November, 1407. His uncle also had represented the shire in the Parliaments meeting in January, 1390, and January, 1393, while he himself sat in that of December, 1403. In 1405 he was one of the justices of the county, and in 1409 he was summoned to Parliament as Lord Cobham in right of his wife, Joan, widow of John, Lord Cobham. Other families favourable to Lollardy were the Actons, the Cheynes, the Clanvowes, and the Greindors.

In some instances proceedings were taken against Lollards connected with the county. In 1393 Walter Brut was tried at Hereford before the bishop, and forced to recant his opinions, and in the following year he was involved in an affray at Leominster, with the prior's servants, which resulted in further legal proceedings. In 1400 also Richard Wyche, a priest in the diocese of Hereford, was summoned during a journey into Northumberland before Skirlaw, bishop of Durham, and forced to recant. 258

Herefordshire did not entirely escape contributions to the expenses of the French war under Henry V, although we do not find it included in the earlier benevolence solicited by Henry IV in 1402.254 In 1421 the King's Council directed a letter to be addressed to the mayor and certain of the principal citizens of the city of Hereford, directing them to pay over immediately to the treasurer a sum of forty pounds, which they had promised to lend the king, on pain of being brought before the Council.265 Again in 1436 the city appears twice assessed for a loan for the equipment of the army about to be sent into France, the first time at forty pounds, the second time at one hundred marks.<sup>256</sup> The shire, however, contributed troops more than money. Among those of its gentry present at Agincourt may be mentioned Sir Roger Vaughan of Bredwardine, Sir Richard de la Mare of Dorstone, Sir John Baskerville of Eardisley, and Sir John Cornewall of Stapleton, who had married Henry IV's sister Elizabeth. Cornewall brought with him a contingent of thirty men at arms and ninety archers.257 The county was probably socially one of the most backward in England. In 1438 Henry VI, in a letter to Pope Eugenius IV, described the inhabitants as wild and untamable by nature.258 They suffered grievously from Welsh inroads, together with the inhabitants of Gloucestershire and Shropshire, and in 1442 it was enacted that for the next six years any Welshmen wrongfully carrying off Englishmen into Wales should be declared guilty of high treason.<sup>259</sup> This Act was renewed in 1449,260 and was supplemented in 1445 by an Act permitting Welshmen who had been indicted or outlawed to be taken in Herefordshire or pursued there by hue and cry.261

In 1425 the fifth earl of March, the last male of the mighty house of Mortimer, was cut off by the plague, and his territories in the Welsh Marches and in Ireland descended through his sister, Anne, to her husband, Richard, earl of Cambridge. When, therefore, the dynastic quarrel between the

<sup>250</sup> Lists and Indexes (P.R.O.), ix, 60.
251 Official Returns of Members of Parl. i, 237, 244, 265.
252 Foxe's Martyrs (ed. G. Townsend), iii, 131-88; G. F. Townsend, Town and Borough of Leominster,

32-6.
253 Fasciculi Zizanorum (Rolls Ser.), 370-82, 501-5.
255 Ibid. ii, 282.
256 Ibid. iv, 319, 321.
257 Nicolas, Hist. of Battle of Agincourt, p. 374.
258 Bekynton Corresp. (Rolls Ser.), i, 2.
259 20 Hen. VI, cap. 3.
260 27 Hen. VI, cap. 4.

family of York and the reigning house began to develop Richard of York, the son of the earl of Cambridge, held large possessions in Herefordshire. Several of the lesser families supported his cause. Sir John Harley of Brampton Bryan was knighted on the field of Tewkesbury, while Richard Croft of Croft Castle was tutor to the earl of March, afterwards Edward IV, and the earl of Rutland, who complained bitterly of his strictness. The Vaughans of Bredwardine and Walter Devereux of Weobley, ancestor of the earls of Essex, also followed Richard of York. But though the Yorkist party was strong, the Lancastrian interest probably predominated in the county. The Bohun possessions were divided between the crown and the Lancastrian family of Stafford, whose head in 1444 was created duke of Buckingham, while the earl of Ormonde held Kilpeck Castle eight miles from Hereford, and in Archenfield beyond the Wye the earl of Shrewsbury held Goodrich Castle, the ancient seat of his family, which had been inherited from Aymer de Valence through marriage.

In July, 1452, Queen Margaret and the duke of Somerset brought Henry VI to Hereford in the course of a progress intended to overawe disaffection. In the next year when Parliament made a novel grant of 20,000 archers in consequence of the disturbed state of England, Hereford was required to supply a contingent of 130.264 In spite of these precautions the Yorkists defeated the government at St. Albans on 22 May, 1455, but in the next year Queen Margaret succeeded in reasserting herself, and forced the duke of York to retire to Wigmore. She kept the king and court mainly at Coventry and Kenilworth, with occasional excursions to other towns of the Midlands and West, including Hereford. In April, 1457, the court removed to Hereford, where the king was attended by the duke of Buckingham and the earl of Shrewsbury, the heads of the Lancastrian party in the Marches. The reason for the approach to the Welsh frontier was to check the proceedings of Sir William Herbert of Raglan Castle, who was attacking Jasper Tudor and the other Lancastrian leaders in Wales. Wholesale indictments by Margaret had strengthened his hands by alienating public opinion, but the presence of the king and queen at Hereford had a marked effect, the burgesses and the gentlemen of the neighbourhood declaring themselves ready to take the king's part unless peace was concluded. On I May it was reported in London that Herbert was willing to make his peace. He was, however, too devoted to the house of York to contemplate more than obtaining a respite.

In 1459 hostilities broke out in the Western Midlands. After the preliminary success of the Nevilles at Blore Heath over a local Lancastrian force, Henry VI moved from Worcester with his main army towards Ludlow, where was gathered the whole force of Richard of York and of the Nevilles. As he advanced Henry offered pardon to all who would submit to him within six days. On 12 October he found the Yorkists posted in front of Ludlow, at Ludford, within the Herefordshire border, in an entrenched position commanding the bridge across the Teme. But the bulk of their followers were not yet prepared to war against the king, and their leaders to keep them

<sup>&</sup>lt;sup>263</sup> Collins, Hist. Coll. of the Noble Families of Cavendish, &c. (1752), 194.
<sup>263</sup> Ellis, Original Letters (Ser. 1), i, 9.
<sup>264</sup> Paston Letters (ed. Gairdner, 1872), i, cxxix-cxxx, 416-17.

together were obliged to spread false reports of the king's death. After dark Sir Andrew Trollope and Sir John Blount, veterans of the French war, drawn from the garrison at Calais, deserted to Henry. The Yorkists melted away, and their leaders sought refuge in flight from the kingdom. Ludlow was sacked by the royal troops, and the duchess of York, who was found there, was placed under the charge of her sister, the duchess of Buckingham.<sup>266</sup>

During the Lancastrian ascendency, which lasted for several months, Herefordshire remained tranquil, and when the young earl of March (the future Edward IV) landed at Sandwich with Salisbury and Warwick on 26 June, 1460, and fourteen days later overthrew the Lancastrians at the battle of Northampton, the county acquiesced quietly in the change, and chose Sir William Herbert to represent it in Parliament in October. The duke of York crossed from Ireland and landed near Chester in the second week in September. The victors at Northampton had on their arrival in London procured for the duke of York 'dyvers straunge commissions fro the kyng for to sitte in dyvers townys comyng homward,' among others Hereford, 'to punych them by the fawtes to the kyngs lawys.' He passed through Ludlow and Hereford, where he was joined by his wife on his way to London.267 His death at the battle of Wakefield on 30 December was the prelude to a year of war. The young earl of March, who was at Gloucester when the tidings came, at once raised a large force from the Marches. was about to proceed north to meet the Lancastrian forces, when he heard that the earl of Pembroke, the king's half-brother, had arrived in Wales by sea with a body of Frenchmen, Bretons, and Irishmen, who were ready to fall on his rear. Pembroke was joined by the earl of Wiltshire, who had fought at Wakefield. On 2 February Edward met and defeated the Lancastrians at Mortimer's Cross on the Lugg, five and a half miles above Leominster. A pillar in commemoration of the conflict was erected there in 1799. The pursuit was carried as far as Hereford, and Owen Tudor, Pembroke's father, who had married Henry V's widow, Catherine of France, was taken and executed at Hereford. Till the last he refused to believe his doom—

wenyng and trustyng all eway that he shulde not be hedyd tylle he sawe the axe and the blocke, and whenn that he was in hys dobelet he trustyd on pardon and grace tylle the coler of hys redde vellvet dobbelet was ryppyd of. Then he sayde 'that hede shalle ly on the stocke that was wonte to ly on Quene Kateryns lappe,' and put his herte and mynde holy unto God, and fulle mekely toke hys dethe.

His head was placed on the top of the market cross,

and a madde woman kembyd his here and wysche a way the blode of hys face, and she gate candellys and sette aboute hym brennynge, moo then a C.

His body was buried in the chapel of the Greyfriars' Church at Hereford.268

In March the battle of Towton decided the fate of England, and in August Edward IV began a progress through the south and west intended to establish his authority. He visited Herefordshire in the middle of September

New. Chron. (1811), 634; Waurin, Recueil des Croniques (Rolls Ser.) v, 321-2; Gregory's Chron. (Camd. Soc.), 205-6.

<sup>&</sup>lt;sup>267</sup> Paston Letters, i, 525; A Chron. of London (ed. Nicolas and Tyrrell 1827), 141.

<sup>268</sup> Gregory's Chron. (Camd. Soc.), 211; Engl. Chron. (ed. Davies, Camd. Soc.), 110; Will. of Worcester,

Annals (ed. Hearne), 486; Three Fifteenth Century Chron. (Camd. Soc.), 77; Hall's Chron. (1809), 251-2.

on his way to Ludlow, which he reached on the 20th.<sup>269</sup> He rewarded Sir William Herbert for his support by creating him a baron on 26 July, and making him numerous grants in the southern marches, including the castle of Goodrich and the lordship of Archenfield,<sup>270</sup> which however afterwards reverted to the Talbots.

The final phase of the war affected Herefordshire but little, although several of her gentry took part in it. After the battle of Tewkesbury in 1471 Richard Croft of Croft Castle, formerly the king's tutor, and at that time sheriff of the county, captured Prince Edward of Lancaster, 271 and was knighted on the field. 272

In 1473, owing to the disturbed state of the Marches, Queen Elizabeth and the prince of Wales, then in his third year, were sent early in the spring to Hereford to hold an assize. The grand jury, probably influenced by the rapid political changes of the preceding years, were unwilling to present unless they received special pledges 'of the Kyng's good grace, and assistance of the Lordes there present.' They also demanded that if they did present, the persons presented should not be 'lightly . . . delyvered withoute due examination.' 278

The period has now been reached at which Herefordshire came under the influence of that body which afterwards became the Council in the Marches of Wales.274 This body developed from the personal council of the prince of Wales, which was first nominated for Edward IV's son on 8 July, 1471. 275 Although Herefordshire and the English counties were not specifically placed under its jurisdiction, yet the constant intercourse between Wales and these counties rendered some measure of co-administration imperative. This was gained at first chiefly by issuing special commissions to officials and members of the council, or by appointing commissioners to act under the supervision of the Council in the Marches. Thus in 1474 a commission was issued to Earl Rivers and ten other persons, including the sheriff of Herefordshire, to array the king's lieges against some Welsh rebels and to assist the prince against them when required by him and his council. 276 On 2 January, 1475-6, a general commission of over and terminer was granted to the prince of Wales within the counties of Salop, Hereford, Gloucester, and Worcester, and the Marches of Wales adjacent, and Wales, with power to array men-at-arms, archers and others, if necessary.277

The death of Edward IV was followed by the overthrow of the queen's kinsmen, the Greys and Woodvilles, by the duke of Gloucester. Gloucester triumphed by the aid of the older nobility, jealous of the new magnates created by Edward IV, and he was obliged to repay them by humouring their territorial ambitions. His two chief supporters were Buckingham and Howard, who had married the daughter of the last Mowbray duke of Norfolk. Buckingham was rewarded on 15 May by being made Justiciar and Chamberlain of North and South Wales, and constable of all royal castles within the Principality and in the counties of Salop, Hereford, Somerset,

<sup>&</sup>lt;sup>269</sup> Ramsay, Lancaster and York, ii, 277.

<sup>271</sup> Hall's Chron. (1809), 301; Retrospective Review (Ser. 2), i, 472-3.

<sup>&</sup>lt;sup>273</sup> Paston Letters (1900), iii, 9.

<sup>274</sup> See Miss Skeel's Council in the Marches of Wales (1904).

<sup>275</sup> Gal. Pat. R. 1467-77, p. 283.

<sup>276</sup> Ibid. p. 429. Rivers was a member of the prince's council.

<sup>&</sup>lt;sup>277</sup> Ibid. p. 574; see also p. 605; and Cal. Pat. R. 1476-85, p. 5.

Dorset, and Wilts, with the right of issuing commissions of array in the same counties. His grant included the castles of Ewyas Lacy, Clifford, and Wigmore in Herefordshire, and the office of seneschal and receiver of the manors of Winforton, Newton, Pembridge, Orleton, Netherwood, and Wolferlow, in the same county.<sup>278</sup> As has already been stated, Buckingham had inherited a moiety of the Bohun estates through his great-grandmother, Anne, daughter and heiress of Thomas, duke of Gloucester. The other half had come to Henry IV by his marriage with Mary Bohun, but since the death of Henry VI the duke of Buckingham considered himself entitled to the whole inheritance. On the accession of Richard III he was rewarded for his support by a promise under the king's sign-manual to restore to him in the next Parliament the rest of the Bohun estates, 279 which however only included one Herefordshire manor, 'Yokehull,' the rest of the estates in that county having already been made over to him by previous grants. 15 July he was acknowledged lord high constable of England, the hereditary office of the Bohuns, and patents were also sealed confirming his appointments as Justiciar and Chamberlain of North and South Wales, and as constable of all royal castles in Shropshire and Herefordshire, but with the right to issue commissions of array within Wales only.280 Buckingham, however, perhaps resented the delay in granting him actual ownership of the full Bohun inheritance. He may also have considered that his descent from the Beauforts through his mother entitled him to the throne itself.281 Suspicions as to the fate of Edward IV's son also may independently have instigated his revolt. In any case Buckingham, who had retired to Brecon early in August, was proclaimed traitor at Lincoln by Richard III on 15 October. 282 On the 18th he took up arms and, in spite of local opposition from Sir Thomas Vaughan of Tretower, advanced at the head of a Welsh force 283 to Weobley in Herefordshire, the home of Walter Devereux, first Lord Ferrers of Chartley, who afterwards fell at Bosworth. But while Vaughan was in arms in his rear his own kinsman, Humphrey Stafford, broke down the bridges in front of him, and a flood in the Severn hindered him from crossing that great river. He marched southwards through the Forest of Dean towards Gloucester, but his army melted away as he went. Finding himself deserted he was compelled to fly into Shropshire, where he was betrayed to Richard by his former servant, Ralph Banaster. He was executed at Salisbury on All Souls' Day. His son and heir, Edward, whom he had left at Weobley with Sir Richard Delabeare, was conveyed to Hereford by Dame Elizabeth Delabeare and there concealed until danger was over.284

The accession of Henry VII, who passed through Leominster in his march from Milford Haven to Bosworth, was peaceably accepted in Herefordshire, the only mark of disturbance being that on 28 December, 1485, the sheriff and three other gentlemen, Sir Richard Croft, Sir Richard

<sup>&</sup>lt;sup>278</sup> Grants during the reign of Edw. V (Camd. Soc. 1854), 5-11, 34.
<sup>279</sup> Printed at length in Dugdale's Baronage, i, 168-9; cf. Harl. MS. 433, fol. 107.
<sup>280</sup> Rot. Pat. 1 Ric. III, pt. i, Nos. 29, 30, 43, cited in Gairdner's Life of Ric. III (1898), 105.
<sup>281</sup> See the reasons for Buckingham's revolt discussed in Gairdner's Ric. III, 105-8.

<sup>252</sup> Davies, York Rec. 179-80.

<sup>283</sup> Rot. Parl. vi, 245; Rerum Anglicanum Scriptores (ed. Fulman, 1684), i, 568; Hall's Chron. (1809),

<sup>393-5.
&</sup>lt;sup>294</sup> C. J. Robinson, Castles of Herefordshire, App. iv; Blakeway, Hist. of Shrewsbury, i, 241; Hist. MSS. Com. Rep. iv, pt. i, 328.

Delabeare, and Ralph Hakluyt, were directed to arrest and hold to bail in Lioo each eighteen persons, and to cause them to appear before the King's Council.286 Croft, who is identical with the former tutor of Edward IV, was made Treasurer of the King's Household in the first year of Henry VII,286 and two years later, at the battle of Stoke, he was created a knight banneret, 287 together with Sir James Baskerville of Eardisley. Immediately after Henry's accession Buckingham's attainder was reversed, and his son Edward, restored to his father's possessions, became the greatest noble not only in Herefordshire but in the Marches generally. Early in 1486 Henry visited Hereford in a tour through the kingdom.

About the beginning of 1493 a council was appointed for Arthur, prince of Wales, and after his death in 1502 it continued to exist in order to administer the Marches. Separate commissions of the peace were issued for Herefordshire at this time and in the early part of Henry VIII's reign, but they usually included the president and two or three members of the Council in the Marches.<sup>288</sup> Commissions of the peace, including the president and some of the members of the Council in the Marches, were also appointed occasionally for North and South Wales and the counties of Salop, Hereford, Gloucester, Worcester, Chester, and Flint, to make inquisition of treason and other offences.<sup>289</sup> Thus the Lord President and five associates were appointed in 1510 to punish rebellions, insurrections, murders, &c., and to array the fencible men. Similar commissions were issued in 1512, 1513, 1515, and 1518.290 On 7 March, 1521-2, a similar commission of over and terminer was issued for the same districts, with power to raise soldiers, if required, and to keep them for the king's use.291

Although the English counties were originally exempt, as has been shown, from the direct jurisdiction of the Council in the Marches,292 the council early in Tudor times began to exercise jurisdiction over them. At least as early as 1510 the council bore the title of the Council in the Principality of North and South Wales, in the counties of Salop, Hereford, Gloucester, Worcester, Chester, and Flint, and in the Marches of Wales. 293

The trial and execution of the duke of Buckingham in greatly increased the influence of the crown in the Marches. Buckingham's lordships, peace and order had not been very strictly preserved. 294 The breach with Rome was a new cause of disorder, for in the Welsh borders Catholic feeling was very strong, 295 as indeed it was in Hereford itself. 296 1534 an Act 297 was passed for the punishment of Welshmen attempting any assaults or affrays upon the inhabitants of the counties of Hereford,

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285 Materials illustrative of the Reign of Hen. VII, ed. Campbell (Rolls Ser.), i, 223.
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<sup>286</sup> Rymer, Foedera (1708), xii, 277.

287 Cott. MSS. Claudius, C. iii, fol. 10.

288 L. and P. of Hen. VIII (ed. Brewer and Gairdner), i, 1963, 3686, 5506; ii, 207, 719, 1192; iii,

1186, 2415; iv, 1610, &c.

290 IL:J: 220 1108 iii 726 1141

<sup>&</sup>lt;sup>299</sup> Ibid. i, 956. <sup>290</sup> Ibid. i, 3289, 4198; ii, 726, 4141. <sup>291</sup> Ibid. iii, 2145(7). <sup>292</sup> This is expressly stated in the draft of the Bill relating to the council, thrown out by the Lords in March, 1606 (S.P. Dom. Jas. I, xix, 33-4); but it must be remembered that the declaratory clauses of this Bill were seriously controverted; ibid. xix, 35.

were seriously controverted; ibid. xix, 35.

293 L. and P. of Hen. VIII, i, 1513, 1839.

294 See Hen. VIII to Buckingham, B.M. Add. MS. 32091, fol. 107, printed by Miss Skeel; Council in

<sup>395</sup> For disorders in Herefordshire see Sir John Huddlestone to Cromwell, 10 May, 1534; L. and P. of

Hen. VIII, vii, 634.

\*\*\* For sympathy with Queen Catherine see mayor of Hereford to Cromwell, 6 June, 1534; L. and P. of 297 26 Hen. VIII, cap. 11. Hen. VIII, vii, 802.

Gloucester, and Salop, and a series of articles were drawn up by the Privy Council on 3 June, to supplement the enactment.298 By the great Act of 1536 299 for assimilating the administration of southern Wales to that of England a number of Marcher lordships lying within or on the borders of Herefordshire were joined to the county. The lordships of Wigmore and Lugharness constituted the new hundred of Wigmore, Ewyas Lacy became a hundred, Ewyas Harold was joined to the existing hundred of Webtree, while Clifford, Winforton, Eardisley, Whitney, and Huntington were united to form the new hundred of Huntington. All these lordships were deprived of their especial liberties, franchises, and privileges. On the other hand the parishes of Old and New Radnor and of Michaelchurch, formerly included in Herefordshire, were united to the new county of Radnor.

In the same year the great outbreak of northern catholicism, the Pilgrimage of Grace, disturbed the kingdom, and the strife found some echoes in Herefordshire. In October the leading gentlemen of the county were summoned to support the king with their followers. Four, Sir James Baskerville, Sir John Lingen, Sir Thomas Cornewall, and Sir William Thomas, were called on to provide a hundred men each. 800 A few persons who manifested sympathy with the insurgents were committed to Hereford Castle by the sheriff.301

During this reign we learn some particulars concerning the military forces of the shire. In 1524 the number of archers able to serve the king in his wars was returned as 895, and the billmen as 1778.302 On 1 March, 1538-9, a commission was issued to array and arm all men over sixteen years of age able to bear arms in Herefordshire, and to certify the number of arms &c. to the council.803 In 1544 a number of county gentlemen, including Sir Edward Croft, Sir James Baskerville, Sir Richard Vaughan, and Sir John Scudamore, were called on to furnish troops for the French war. whole contingent amounted to 1,500 men. 304

In Edward VI's reign, on 2 February, 1550-1, Walter Devereux, Lord Ferrers of Chartley, was created Viscount Hereford, being a descendant of Eleanor de Bohun, younger daughter of Humphrey, seventh earl of Hereford. This title has continued in the family of Devereux until the present day, with the exception of a break of two years between 1601 and 1603 caused by the attainder of the earl of Essex. From 1572 to 1646 it was, however, obscured by the bestowal on the holder of the superior dignity of earl of Essex, but on the death of the third earl the earldom became extinct. The present viscount is premier viscount of England.

In the summer of 1551 serious disturbances arose in the neighbouring counties of Gloucester and Worcester, as in other parts of England, on account of the inclosure of common arable land, and its conversion into pasture. In consequence John Scudamore, the steward of Hereford city, was instructed to have the forces of the city ready for action. 905

Two years later the attempt of the duke of Northumberland to place Lady Jane Grey on the throne created great enthusiasm for Mary in the con-

<sup>&</sup>lt;sup>298</sup> L. and P. of Hen. VIII, vii, 781. <sup>300</sup> L. and P. of Hen. VIII, xi, 579.

<sup>308</sup> Ibid. xiv (1), 652. 302 Ibid. iv (1), 972. 305 Richard Johnson, Ancient Customs of Heref. (1882), 154.

<sup>&</sup>lt;sup>299</sup> 27 Hen. VIII, cap. 26.

<sup>301</sup> Ibid. xi, 1328. 304 Ibid. xix (1), 273, 274, 276.

servative county. In fact the county justices aroused some indignation among the Hereford citizens by endeavouring in their zeal to muster the county horse in the city. The inhabitants of Leominster, who especially distinguished themselves by their fidelity to Mary Tudor, were rewarded by the grant of a municipal charter, while the Privy Council wrote a letter of thanks to the mayor of Hereford, on 28 August, 1553, ordering him to raise no further levies.

While the thanks and rewards bestowed on Hereford and Leominster probably indicate that there had been apprehensions of a movement in favour of Jane, and perhaps even some actual disturbance, it is impossible to accept the assertion that Jane's adherents were defeated in a great battle at Cursneh Hill, near Leominster. 309 The leader of Lady Jane's party was Sir James Croft, who after serving at the siege of Boulogne in 1544 was lord deputy of Ireland in 1551 and 1552. Early in 1553 he was appointed deputy constable of the Tower of London, but on Mary's accession he was removed on account of his support of Lady Jane, though he received a pardon for his offences. 310 On 25 January, 1553-4, he left London with the intention of raising forces in the west to co-operate with Sir Thomas Wyatt.311 promptly apprehended by Richard Mytton, sheriff of Shropshire, and on 21 February committed to the Tower. 312 On 28 April he was convicted of high treason, 313 but Mary spared his life, and afterwards employed him in her service. After Elizabeth's accession he was restored in blood 814 on 2 March, 1558-0, and during her reign he had a long and distinguished career of political service as comptroller of the household.<sup>315</sup>

During the reign of Elizabeth reinforcements for Ireland were frequently drawn from Herefordshire and the other western counties. On 16 July, 1580, the Privy Council informed the lord deputy of Ireland, Lord Grey, that two hundred men were to be levied from Herefordshire for service in Ireland. The Only one hundred, however, were actually raised. At that time the muster for the whole county, exclusive of the city, amounted to 6,102 men. In the following year the council ordered twenty-five men from the county to be shipped for Ireland from Bristol. In 1585 fifty men were supplied, and in 1589 one hundred. In 1590 two hundred were called in anticipation of the Spanish landing in Ireland. In that year, according to the musters, there were 3,000 able men in the shire, but of these only 1,500 were trained and furnished with arms. The deputy lieutenants reported that very little armour or warlike furniture was to be found among the yeomen and farmers. These figures are very different from those of 1580. Further levies for Ireland were made in 1594, 1596, 1597, 1598, 1599, and 1600. In 1597, on the alarm

<sup>306</sup> Richard Johnson, Ancient Customs of Heref. (1882), 155.
307 G. F. Townsend, Town and Borough of Leominster (1863), 65-70; John Price, Hist. and Topogr.

Account of Leominster (1795), 37-41.
309 On this story see G. F. Townsend, Town and Borough of Leominster, 66-8.
310 Chron. of Queen Jane (Camden Soc.), 13.
311 Ibid. 36, 40.
312 Ibid. 63; Acts of P.C. iv, 396.
313 Chron. of Queen Jane, 75-6.
314 Com. Journ. 2 March, 1558-9.
315 Memoirs of Sir James Croft,' by Sir N. H. Nicolas, in the Retrospective Review (Ser. 2), i, 474-98.
316 Acts of P.C. xii, 106.
317 Ibid. xii, 205, 210, 217, 219, 227-8.
318 S.P. Dom. Eliz. cxxiii, 29, I.
319 Acts of P.C. xii, 561.
320 S.P. Dom. Eliz. clxxvi, 43.
321 Ibid. xviii, 295-8, 329-30, 350, 419-20, 440; xix, 28, 32.
322 Ibid. xviii, 295-8, 329-30, 350, 419-20, 440; xix, 28, 32.
323 S.P. Dom. Eliz. ccxxxi, 90.
324 Ibid. ccxlviii, 87; Acts of P.C. xxvii, 159; xxviii, 27; xxviii, 584-6, 607-9; xxix, 81, 83, 94-6, 98, 492, 540-3, 573-7; xxx, 412-6.

that the Cardinal Archduke Albert was advancing to Boulogne with a design to invade England, 150 men were levied from the county,<sup>325</sup> and when the apprehension was over the troops were employed under Essex in the expedition to the Azores.<sup>326</sup>

Almost from the commencement of Elizabeth's reign Herefordshire was disturbed by difficulties with the Catholic recusants. In July, 1569, the justices of the peace reported to the council that John Scudamore of Kentchurch and others refused to subscribe to the Act of Uniformity. 327 earlier date recusants were reported to be lurking secretly in the county supported by the inhabitants. 828 On 28 August, 1576, the Privy Council directed the mayor and officers of Hereford to see that no one was elected mayor who would not take the oath and uphold the established religion, and to send recusants to the council.829 In September, 1581, the council intimated that it was dissatisfied with the lenient treatment of recusants in Herefordshire by the sheriffs and that the bishop of Hereford had complained concerning it. These recusants had been suffered to remain in their own houses under colour of being in custody, and thus they had evaded the fine which they would otherwise have incurred for non-attendance at church. 380 In December, 1588, the sheriff was definitely instructed that recusants were not to be allowed to remain free prisoners, but to be committed to prison until further orders from the Privy Council.<sup>331</sup> In 1605, at the time of Gunpowder Plot, there were serious fears of an armed rising. 332

The religious feeling reacted on the general condition of the county, which was one of great disorder. In June, 1571, a great riot occurred in Bromyard against the bishop of Hereford who was lord of that town, 333 while ten years later the Privy Council was informed that there were more murders committed daily in the shire than in any two 'thereabouts or in all Wales.' 334 In May, 1586, the Privy Council directly imputed these disorders to the evil example of disregard for law in the case of the recusants. Thefts and burglaries they asserted were daily committed without punishment through the negligence and faction of the justices of the peace. In consequence they ordered the Council in the Marches to call offenders before them and to take steps for reforming and punishing disorders, 335 while the president was appointed lord lieutenant of Worcestershire, Herefordshire, and Shropshire. 336

This was a distinct extension of the authority of the Council in the Marches, such jurisdiction in the case of 'mere' English shires being universally exercised by a temporary commission of over and terminer directed to all or some of the members of that body. It is true that in May, 1574, the Attorney and Solicitor-General had given an opinion at the request of the Privy Council in favour of the jurisdiction of the Council in the Marches over the city and county of Worcester, which necessarily involved a like jurisdiction over Hereford; but in July, 1596, the sheriff of Herefordshire was rebuked by the Privy Council for not enforcing an order of the Court of

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325 Cal. S.P. Dom. 1595-7, p. 400; Acts of P.C. xxvii, 101-5.
327 S.P. Dom. Eliz. lx, 22.
328 Ibid. Additional, xi, 45.
329 Acts of P.C. ix, 197.
330 Ibid. xiii, 191-3.
331 Ibid. xvii, 402.
332 S.P. Dom. Jas. I, xiv, 40, 52.
333 Acts of P.C. viii, 33.
334 Ibid. xiii, 246.
335 P.C. to Council of Marches, 25 May, 1586; Acts of P.C. xiv, 124-5.
336 S.P. Dom. Sign Manual, viii, No. 63.
338 Ibid. viii, 236-8.
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Common Pleas,339 and in October, 1602, Sir Edmund Anderson, the chief justice of common pleas, stated that he did not think that Gloucestershire, Herefordshire, &c., were within the circuit of Lord Zouche, the lord president of the Council in the Marches. 340 In Michaelmas term, 1604, all the justices and barons of the Exchequer were assembled by the command of the king, and decided that the four counties of Hereford, Worcester, Gloucester, and Salop were not within the jurisdiction of the council.841 Strong protests against this decision were made by the supporters of the jurisdiction of the council.342 On the meeting of Parliament the Commons espoused the side of the counties, and in March passed an Act explaining 34 and 35 Henry VIII, cap. 26, in their favour, which did not get beyond the Committee stage in the Lords, probably in consequence of the desire of the Commons to modify their own bill. Another bill, introduced in May, was dropped owing to the assurances of the king.343 On the appointment of Lord Eure as president in August, 1607, in succession to Lord Zouche, the affair was compromised by minor actions being left under the jurisdiction of the council, 344 while in criminal affairs a mere commission of over and terminer was substituted for the extraordinary powers of the council. 345 This decision, however, did not satisfy the counties, more particularly as Sir Herbert Croft of Croft Castle, grandson of the comptroller, the leader of the opposition, was put out of the commission of the lieutenancy and of the peace. Before Christmas, 1607, a sturdy resistance was organized. In Herefordshire the bishop and twenty-six of the leading gentry urged Croft to continue his exertions to free them. The question again came before the Privy Council, where, after an altercation between the king and Coke, on 6 November, 1608, the opinion of the judges was taken. This opinion was delivered in writing by Coke on 3 February, 1608-9, and Sir Herbert Croft stated that the judges reported that 'not disputing H. M.'s regal power, in mere points of law these four English counties ought not to be under that government.' 846 As the opinion was unfavourable to the crown, it was never suffered to become public. When Parliament met in 1610, the Commons petitioned the king on 7 July for a redress of the grievance created by the authority exercised over the counties by the president and Council of the Marches, 347 and the grand jury of Herefordshire also petitioned against it. 348

The attempts to force contributions from the county had also occasioned much dissatisfaction. After the rupture with Parliament in 1621 James I was driven to the expedient of a benevolence to provide funds for his government. In answer to the royal demands the justices of the peace for the shire wrote to the Privy Council on 7 May, 1622, stating that the people of the county earnestly pleaded to be excused from the voluntary contribution. The council had written urging a cheerful giving, but, according to

<sup>339</sup> Acts of P. C. xxvi, 29-30.

<sup>340</sup> Bacon's Works (1859), vii, 571-2, quoting Manningham's Diary (Camd. Soc.).
341 The Fourth Part of Coke's Institutes, 242.

<sup>842</sup> For the whole question see S.P. Dom. Jas. I, x, 86; xxiv, 74; xxxi, 31-7; xxxii, 13, 14. These

documents are probably not in proper chronological position.

343 Com. Journ. 21 Feb.; 1, 4, 10 March; 10, 11 April; 13, 15 May, 1606; Lds. Journ. 13, 25 March; 3, 7 April, 1606; cf. S.P. Dom. xix, 33-5.

<sup>344</sup> Miss Skeel, Council in the Marches, 137. Heath's preface in Bacon's Works, vii, 577, from Brit. Mus. Cott. MS. C. 1, ff. 197-204.

S46 Croft to Somerset, March, 1614, in S.P. Dom. Jas. I, lxxvi, 53.

<sup>&</sup>lt;sup>848</sup> Ibid. Ivii, 96; Iviii, 56, I.

the justices, these letters when read in a public assembly were received with dead silence. Nevertheless some money was raised, for on 13 July they informed the council that they had increased their contributions to £584 15s. 11d. This they pointed out was a great sum for so small a county, considering that money was scarce and that Hereford and Leominster contributed apart. On 1 July the mayor of Hereford had forwarded £55 10s. 6d. 551

In the autumn of 1626 the expedient of a benevolence was replaced by that of a forced loan. Originally the loan was confined to the five counties nearest London, but it was afterwards extended to other parts of England. On 11 January, 1626-7, the earl of Northampton, president of the Council in the Marches of Wales, informed the Privy Council that his delay in sending certificates for the loan had been occasioned by the backwardness of the country. In particular the counties of Gloucester and Hereford had made no response.352 But before he wrote this letter the deputy lieutenants of Herefordshire had penned a reply in which they claimed exemption on the plea that the king's instructions concerning the loan only applied to the counties in Wales. Subsequently, on 17 February, Northampton was able to inform the council that all the commissioners appointed in Herefordshire to enforce the loan had subscribed and paid.854 On 20 March the commissioners for Hereford city informed the council that they had found none refractory or backward in regard to the loan. 855 In August the commissioners for the county were also able to make a fairly satisfactory report. 356

Two other forms of financial exaction caused much discontent in the county during the next reign. These were the exaction of coat and conduct

money and the levying of ship money.

The exaction of coat and conduct money was the earlier in point of time. It had been customary in Tudor reigns. On 14 January, 1589, the lords of the Privy Council directed the lord lieutenant of Herefordshire to furnish coats for soldiers, to be levied within his lieutenancy in December, for the expedition to the Spanish Peninsula under Sir John Norris and Sir Francis Drake. There was, however, an understanding that repayment would be made by the crown; and in some cases at any rate repayment was actually made. Thus on 1 April, 1599, the Privy Council wrote to the treasurer, Lord Buckhurst, directing him to pay £93 6s. 8d. for the coat and conduct money of two hundred men levied in Herefordshire. In 1628 the demand met with resistance, and the persons refusing payment were 'sent for' to the Privy Council.

The greatest discontent, however, was occasioned by the imposition of ship money. Noy's conception of making this local contribution general throughout England was first carried out in 1635. By a writ dated 4 August Herefordshire was assessed at £4,000. The sheriff of the county, William Scudamore, was responsible for the levy of the whole, except the sum of £210, the amount at which the city of Hereford was assessed, and for which the mayor was responsible, and of £50 for the borough of Leominster, which

 <sup>349</sup> S.P. Dom. Jas. I, cxxx, 34.
 350 Ibid. cxxxii, 40.
 351 Ibid. cxxxii, 2.
 352 S.P. Dom. Chas. I, xviii, 33.
 353 Ibid. xviii, 72, I. Both this document and the last have been bound and calendared a year too early.
 354 Ibid. liv, 28.
 355 Ibid. lvii, 74; but cf. lxxiii, 30.
 356 Ibid. lxxiii, 17.
 357 Acts of P.C. xvii, 24-5.
 358 Ibid. xxix, 689-90.
 359 S.P. Dom. Chas. I, cxxvi, 15.

the bailiffs were required to collect. The first levy was got in without serious difficulty, for Herefordshire was too backward a county to concern itself with abstract questions concerning rights of taxation. Almost the whole of the sum at which the county had been assessed was paid by June, 1636, and by January, 1637, only £84 35. 5d. remained in arrear. The payments from the city were not quite so satisfactory. The payments from the city were not quite so satisfactory.

By the second writs of ship money issued on 12 August, 1636, the county was assessed at the slightly lower rate of  $f_{3,315}$ , and the city at £, 185.364 The collection of this second contribution presented much greater difficulties. On 1 February, 1636-7, the sheriff, Roger Vaughan, informed the council that so great a sum could not be raised in so poor and small a shire but with much difficulty. He believed that for so small a circuit as this shire contained there was not in the kingdom a greater number of poor people. He added further that they had no commodity among them for raising money but some small quantity of fine wools, and that the market value of these had been seriously impaired of late by Spanish competition.<sup>365</sup> By 24 April he had raised £2,780.866 In August he informed the council that the collection of arrears was hard work, and that little was paid but what was forced by distraining.387 By October the city had paid £150 of its assessment and Leominster was less than £2 in arrear. The county at this time was crippled by visitations of the plague, which raged in Ross and its neighbourhood. The heavy incidence of the tax may be judged by the return of a chief constable of the hundred of Radlow, who stated in explanation of arrears that some of the persons from whom small sums were due were dead of the plague, and that others were day labourers or persons without anything that could be distrained. By November, 1637, the arrears were reduced to £60 6s. 4d.369

The third writ of ship money was issued in the autumn of 1637, and by it Herefordshire was assessed at £3,500. The sheriff and the justices of the peace of the county presented a strong petition to the council against it, drawn up at the quarter sessions. The petition is remarkable for the absence of any objections to the right of the council to impose the tax. It is entirely concerned with practical considerations. The justices represented that they found the burden very heavy by reason of the unequal distribution of the charge as compared with other counties. The county, they said, was small, and the sickness so much dispersed that they were charged with £55 a week to relieve one town alone. It had also lately broken out in Hereford and other places. They therefore prayed the lords of the council to reduce the rate to a proportion suitable with other counties. In consequence of this petition the new sheriff, Henry Lingen of Sutton Frene, who entered office on 30 September, found the people very loath to contribute until an answer had been received. In 1638 a new and more importunate

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    S.P. Dom. Chas. I, cccxxv, 45; ccclv, 6.
    Jibid. cccxxv, 45; cccliv, 23.
    Jibid. cccxiii, 56; ccclvii, 77; see also ccclxxi, 111; ccccvii, 49; ccccxii, 28.
    Jibid. ccclxiii, 19; cf. ccclxxiii, 58.
    Jibid. cccliv, 83; ccclxvi, 43; ccclxix, 2; ccclxxi, 87.
    Jibid. ccclxvi, 6.
    Jibid. ccclxviii, 56; cccli, 16; cccliv, 71, 83.
    Jibid. ccclxvi, 43.
    Jibid. ccclxxi, 2; ccclxxi, 60.
    Jibid. ccclxxi, 87; cf. ccclxxii, 49; ccclxxxi, 35; ccccli, 7.
    Probably Ross.
    Jibid. cccxxv, 45; cccliv, 23.
    Jibid. cccxxv, 45; cccliv, 23.
    Jibid. ccclxviii, 56; cccli, 16; cccliv, 71, 83.
    Jibid. ccclxxii, 43:
    Jibid. ccclxxii, 2; ccclxx, 60.
    Jibid. ccclxxii, 35; ccccli, 7.
    Probably Ross.
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petition was presented setting forth that the county had for two years past been visited 'with the grievous contagion of the plague of pestilence,' which imposed a heavy financial burden on the shire, that the Lent corn and fruit of that year were generally failing, whereby famine was creeping upon them, and that the plague in Worcestershire was stopping commerce for the sale of their wool. In Ross alone one hundred persons were dead and one hundred families decayed, who paid ship money. They therefore implored that the present taxation of ship money might be forborne. This petition was signed, among others, by George Coke, the bishop of Hereford, and by Sir Robert Harley, who afterwards became the leader of the Parliamentary party on the outbreak of civil war. Harley, who held the office of Master of the Mint in the Tower of London for life, with a salary of £4,000 a year, was a stern and consistent Puritan. He was a man of good estate and ancient family, owning Wigmore Castle, the former seat of the Mortimers, and the stronghold of Brampton Bryan on the boundaries of Radnorshire.

The work of collection went on slowly. In January, 1638-9, Lingen had been obliged to distrain for at least £1,000 out of a sum of £1,800, which he had obtained.873 By August he had realized £2,300, but the council had grown impatient, and on 7 August wrote ordering him to attend the

board to give an account of his collecting.<sup>374</sup>

But before this stage had been reached the fourth writ of ship money was issued, in January, 1638-9. It was accompanied by instructions to the sheriff, Sir Robert Whitney, to consult the inhabitants in regard to assessments. But Whitney found that his subordinates, the chief constables of the hundreds and the petty constables of the parishes, were no longer to be relied on for assistance. In many places they and the inhabitants alike refused to undertake the task of local assessment. From seven of the eleven hundreds he failed to receive complete lists of assessments. To some, whom he found most blameworthy, he directed particular warrants requiring their present repair unto him, with sureties for their personal appearance before the Lords of the Council, to answer their contempt. 876 Even these measures had little effect. In August he, like Lingen, was summoned to attend the Council Board, but asked to be excused on the ground that his absence would retard the collection.876 The lords replied that they would excuse his attendance, but that he must not fail to levy and pay in all the ship money due by the last writ before the first day of the next term, adding that if he failed he must expect no further favour, 'this being a service not to be so trifled with and neglected as hitherto it has been by you more than by any other sheriff in the whole kingdom.' 877 By 10 December Whitney had paid in £610, 878 and by 9 May, 1640, only £97 18s. were in arrear.879

On 10 November the fifth writ of ship money was issued, in which Herefordshire was rated at  $f_{3,500}$ . The task of the new sheriff, Thomas Alderne, was even more hopeless than Whitney's. He encountered the same obstacles from the constables and inhabitants as his predecessor. When he issued warrants for levying the money, the inhabitants replied that they had

<sup>&</sup>lt;sup>373</sup> S.P. Dom. Chas. I, cccex, 23; cf. cccexvii, 89-90. <sup>874</sup> Ibid. ccccxxvii, 105.

Whitney to Nicholas, 6 April, 1639, ibid. ccccxvii, 44.

Representation of the control of the co 379 Ibid. cccclii, 100, I.

neither money nor means to raise money by reason of the low prices of corn and cattle, and he was driven to order wholesale distraint.880 When he ordered the constables to appear before him divers of them contemptuously refused either to appear or to assess according to his precepts; many also declined to distrain and sell goods, while others returned the menacings and threatenings of the persons assessed.<sup>381</sup> The expectation of the meeting of Parliament was another hindrance to collection. 882 After the dissolution of the Short Parliament, however, on 5 May, 1640, the council resolved on more drastic action. Alderne was ordered to appear before them on 29 April, and on 8 May was committed to the gatehouse.<sup>383</sup> He was not only in disgrace for not levying ship money, but also for 'abusing the Council Board' by a letter saying untruly that his under-sheriff, Ellis Price, had been slain in January in executing the council's orders in regard to ship money.384 On examination by the Attorney-General he asserted that he had taken stringent measures against the recalcitrant constables, and subsequently defended his statements in regard to the death of his under-sheriff by saying that he was slain in executing the king's writ, though not in connexion with ship money, and that this had frightened his present under-sheriff. 385 He was only released on 29 May on giving a bond in £3,000 to appear to answer the Attorney-General's charges before the Court of Star Chamber. 886 On his return to Herefordshire he made great exertions to raise money, appointing six substantial men in each hundred to assist the chief constables as collectors. Even this measure had no effect. The better sort of people said that they had no money, but that the collectors might distrain if they pleased, while others declared that they would not pay before the gentry. The greater part of the constables refused to distrain, and Alderne was obliged to commit some of them to prison. Moreover, in some cases distrained goods had been rescued from the bailiffs. All that Alderne could collect was £200.887 In September he informed Sir Edward Nicholas that his under-sheriff would not help him, that he was weary of imprisoning constables, that most of the gentry refused payment, that his collectors would not distrain, and that he had been obliged to travel through parts of the county distraining many of the principal gentry. Some of the collectors began openly to defy him. John Addis of Pipe told Alderne publicly that he would not stir a foot in the business, and John Hearing of Holmer said that he thought ship money unlawful, and that he could not pay it till he had advised with his counsel. 888 By unprecedented efforts he had collected £450, when the prospect of the Long Parliament put a stop to further levies. 389

In addition to these contributions the county had also been called upon to provide troops for service against the Scots. In February, 1638-9, the king announced his intention of repairing in person to Scotland to repress disorders, and requested the Lord Lieutenant of Herefordshire to select 150 men from the train-bands, provide them with knapsacks, and bring them to York, or any other place of rendezvous named, at the charge of the county. The number finally taken was raised to 200. The Herefordshire levies were

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3ºº Alderne to Council, Feb. 1639–40, S.P. Dom. Chas. I, ccccxlvi, 72.
3º¹ Same to same, 2 March, 1639–40, ibid. ccccxlvii, 8.
3º² Ibid. cccclii, 76.
3º³ Ibid. cccclii, 76.
3º³ Ibid. ccccliv, 10; cccclv, 32.
3º³ Richard Hering to Juxon, 25 Aug. 1640, ibid. cccclxiv, 98.
3º³ Ibid. cccclxii, 130; cf. cccclxix, 102.
3º³ Ibid. ccccxiii, 111.
3º³ Ibid. ccccxiii, 111.
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not distinguished for excellence. A correspondent of Sir Dudley Carlton heard in Ross that they compared very unfavourably with the pressed soldiers They were described as for the most of Monmouth and Glamorgan. part a naked, poor-conditioned people of the meanest sort. £400 had been levied on the county, the soldiers were only coated, no money being forthcoming for their conduct. On their way to Ludlow the soldiers expressed their discontent at the want of fit clothing or diet. When their conductor thought to suppress their murmurings, they fell upon him and hurt Many of them also ran away. 392

Further levies were demanded in the following year. On 11 June, 1640, the deputy-lieutenants informed the Lord Lieutenant of the county that after impressing 300 men they had provided them good coats and apparel, and that with the assistance of officers sent down by the Lord General 393 they had been kept under discipline. They were ready to march on 2 June, when their departure was postponed by the council until 2 or 3 July. As the money assessed was too little for their pay during this interval, they were given leave to return to their habitations till I July, and charged to be ready to return at an hour's warning.894 At first the disposition of these troops was good, but the delay in their departure gave time for a change, and before they finally marched away they displayed a mutinous spirit, 395 which gave rise to a skirmish with the inhabitants of Leominster.896

Representatives were returned to the Long Parliament from the county, the city, and the boroughs of Leominster and Weobley. The county returned Sir Robert Harley and Fitzwilliam Coningsby, two men destined to take a prominent part in the Civil War on opposite sides. The city sent up Richard Weaver, who died before the outbreak of the war, and Richard Seaborne, a staunch loyalist. One of the representatives of Leominster, Walter Kyrle, was a Parliamentarian; the other, Sampson Eure, was speaker of the Oxford Parliament in 1644. Weobley returned two royalists. 397 In making this analysis, however, it must be remembered that the bulk of the royalist party only began to range itself after the execution of Strafford. On 14 July, 1641, a Bill passed the Commons, which was finally sanctioned by the Lords on 9 May, 1642, to exempt the counties of Salop, Hereford, Worcester, and Gloucester from the jurisdiction of the President and Council of the Marches in Wales.<sup>398</sup> So far the proceedings in Parliament were in accordance with opinion in Herefordshire. But when subsequently it proceeded to attack the ritual and constitution of the Church of England, a petition in favour of the established order was drawn up and presented early in 1642 bearing the signatures of 3,600 freeholders and inhabitants, sixty-eight knights, esquires, and gentlemen of quality, and 150 ministers of good report. In spite of the fact that a petition was presented to the Commons on 4 May, 1642, expressing approbation of the conduct of Parliament,400 there can be little doubt that

approbation of the Conductions and Marthumberland.

S.P. Dom. Chas. I, ccccxviii, 95.

S.P. Dom. Chas. I, ccccivi, 69.

S.P. Dom. Chas. I, ccccivi, 69. 395 Ibid. cccclix, 86. solution of the Civil War as it affected Heref. and the adjoining Counties (1879), ii,

Gommons Journ. 4 May, 1642; the petition is printed in Webb, Memorials, ii, 338-9; Letters of Lady Brilliana Harley (Camden Soc.), Nos. cxlii, cvi (misplaced), cxlix, cl.

the ecclesiastical question restored the loyalty of the county which the exactions of ship money had shaken. The feeling of the county was expressed in 'A Declaration or Resolution of the Countie of Hereford,' 401 which attacked Parliament with great pungency and bitterness. mons immediately committed to Newgate two persons who were concerned in publishing it, and endeavoured, though unsuccessfully, to ascertain the author.402

According to Richard Baxter, long resident in the counties of Salop and Worcester, and John Corbet of Gloucester, Herefordshire at the outbreak of the Civil War was wholly for the king, and a variety of evidence shows that nowhere were the gentry and their dependants more loyally The attitude of the county was due to the great influence of the older families, who had not been displaced as in many parts of England by new landed proprietors who had made their money in commerce or trade. The greater part of the labourers employed on a farm were servants of the household, dwelling under the same roof and eating at the same board with their masters. The gentry lived and died chiefly among their own people and were related by constant intermarriage. 408 The county in fact was socially one of the most conservative in the kingdom, and while the gentry had not lost their hold on the yeomanry, they had no sympathy with—hardly, in fact, any comprehension of—the changes demanded by the parliamentary party. To them the monarchy was still the Tudor monarchy which had restored peace and good government after the insecurity of the fifteenth century, and had removed the danger of Welsh inroads. The Puritan movement had taken little hold on the county, and Laud's report of his visitation in 1637 related more to proceedings against Roman Catholic recusants than against Protestant Nonconformists. 404

The only nobleman residing in the county was John, Viscount Scudamore, whose father, Sir James Scudamore, was knighted at the siege of Cadiz in 1596 with John Rudhall and John Scudamore of Kentchurch, and was the Sir Scudamore of Spenser's 'Faerie Queene.' A friend of the duke of Buckingham, the younger Scudamore was made a baronet on I June, 1620, and Viscount Scudamore of Sligo on 1 July, 1628. He was hereditary High Steward of the city and cathedral of Hereford. Holme Lacy on the Wye. Both his rank and his personal character marked him as the leader of the royalists in the county. Among his staunchest supporters were Henry Coningsby of Hampton Court near Leominster, Sir William Croft of Croft, Sir Henry Lingen of Sutton Frene, and Sir Walter Pye of the Mynde. These gentry carried the bulk of the county with them.405

Scudamore's chief opponent was Sir Robert Harley, already mentioned, a man of strong Puritan principles. In the spring of 1642 he commenced to repair and strengthen the fortifications of his fortress of Brampton Bryan. On 29 August, while in London, he was appointed one of a committee for considering for a speedy defence for the counties of Salop, Hereford,

<sup>101</sup> Reprinted in Webb, Memorials, ii, 393-4.

<sup>402</sup> Old Parl. Hist. xi, 256, &c.; Commons Journ. 8, 18, 26 July, 1642; Lords Journ. 8, 26 July, 1642. 403 Webb, Memorials, i, 5, 14. 405 Symonds's Diary (Camden Soc.), 195-6. 404 Harl. MS. 787, 37a, 23b.

Monmouth, Worcester, Lancaster, Chester, and North Wales, and on 3 October he was sent down to attend on the Lord General. His chief supporters were Sir Richard Hopton of Canon Frome, Sir John Kyrle of Much Marcle, his kinsman Kyrle of Walford, and Sir Edward Powell of Pengethly. Sir Richard Hopton's eldest son, following a policy not unusual in civil strife, became a colonel in the king's army, while a younger son was a major in the parliamentary service.

Most of the neighbouring counties were royalist in their sympathies. Monmouth was swayed by the earl of Worcester and his son Lord Herbert. In Brecknockshire and Radnorshire there was at first no disposition to take part in the struggle, while in Shropshire and Worcestershire the majority were attached to the king. Gloucestershire alone was powerfully in sympathy with Parliament.

On 10 February, 1641-2, the Commons appointed Lord Dacre lieutenant of the county of Hereford, 407 and when he fell sick Lord Essex was selected as his successor. 408 But the parliamentary nominee found himself without authority, while the military force of the county was raised for the king by means of commissions of array to Sir Walter Pye of the Mynde and other gentlemen.409 The commissioners embodied and armed the trainbands and took possession of the county magazine in the city of Hereford at St. Owen's Gate. They also levied and fitted out 200 horse, undertaking to pay them for six months, and sent in a contribution of  $f_{3}$ ,000 to the king at York.410 The marquis of Hertford was subsequently sent down with an extensive commission of array, dated 2 August, 1642, as lieutenantgeneral of all the forces raised within the counties of Devon, Cornwall, Somerset, Dorset, Southampton, Gloucester, Berks., Oxon., Hereford, Monmouth, and South Wales.411 Between June and September Lord Scudamore collected arms and ammunition at Holme Lacy, and armourers and saddlers were set to work.412

At the beginning of the war the line of the Severn was in possession of the royalists as far south as Gloucester, while they also held the whole of the country westward. Charles I set up his standard at Nottingham on 12 August, and on 20 September he established himself at Shrewsbury in order to ensure his communications with South Wales. Essex in turn moved westward from Northampton, and in spite of the disastrous skirmish at Powick Bridge occupied Worcester on 24 September, thus obtaining control of the Severn as far north as Bewdley. This movement exposed the line of communication through Herefordshire between Shrewsbury and the royalists in Monmouthshire and South Wales. In order to close this direct route to Charles it was necessary for Essex to occupy Hereford. This task he entrusted to the earl of Stamford, placing under him, as 'a forlorne hope,' a detachment of 900 men, drafted in fifteens from all the companies, together with three troops of horse and two pieces of ordnance. city, which was unprepared for resistance, and possessed hardly any artillery, was surrendered by the mayor in a panic. Two days later the 'forlorne hope' was replaced by Lord Grey of Groby's regiment of foot and two

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406 Commons Journ. 29 Aug., 3 Oct. 1642.
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<sup>408</sup> Ibid. 8 Aug. 1642.

<sup>410</sup> Ibid. i, 70-1, 97.

<sup>411</sup> Ibid. i, 100-1.

<sup>&</sup>lt;sup>407</sup> Ibid. 10 Feb. 1641-2.
<sup>409</sup> Webb, *Memorials*, i, 69, 96.

<sup>412</sup> Ibid. i, 106-7.

troops of horse as a permanent garrison.418 Towards the end of October the leading royalists of Radnorshire and of South Wales assembled at Presteigne under Lord Herbert, the eldest son of the earl of Worcester, to concert operations for the recovery of Hereford; but they allowed themselves to be surprised there by a detachment of Stamford's force under Fleming, Kyrle's lieutenant, who made several prisoners. The consequences of the occupation of Hereford were not long in declaring themselves. On 2 November the parliamentary party rose in Pembrokeshire, garrisoned Haverfordwest, Tenby, and Pembroke, and sent to Stamford for assistance. On the other hand the marquis of Hertford succeeded in mustering the forces of the other South Welsh counties for Charles, and Stamford had no force numerous enough to cope with Herbert's levies, although it was most important for him to succour the rising in Herbert's rear. He could only forward the application to Bristol and London, while he himself was fully occupied by the plundering raids of royalist bands from Raglan under the command of Lord Herbert. 414 The first blood shed in Herefordshire was occasioned by a detachment under Kyrle surprising a body of these marauders at Ewyas Harold on 13 November. But, notwithstanding this slight success, Stamford's position was becoming very dangerous. On 12 October Charles had marched on London from Shrewsbury, drawing Essex after him. Before the battle of Edgehill on 23 October Essex had left Colonel Thomas Essex to occupy Worcester with his regiment. But about 5 November Thomas Essex was obliged to shift his quarters to Gloucester, whence later he was ordered to remove to The marquis of Hertford put down the insurgents in Pembrokeshire towards the close of the year, and Stamford found himself isolated amid a hostile population in a situation in which a reverse would be fatal. Moreover the shifting of the main campaign eastward had lessened the strategic importance of his position and rendered it imperative to concentrate the parliamentary forces remaining in the west. On 14 December, having called in an outpost at Goodrich Castle, he retired unmolested to Gloucester, after disarming the train-bands and appropriating the stores in the magazines. Immediately on his departure Colonel Sir Richard Lawder took possession of Hereford on behalf of the royalists, while a few days later the marquis of Hertford passed through the town on his way to join Charles at Oxford with 2,000 men. On 20 December he appointed Fitzwilliam Coningsby of Hampton Court, who had been newly nominated sheriff of the county, governor of the city and garrison of Hereford. Heavy contributions, amounting to £3,000 monthly, were laid on the county for the king's needs,415 though it may be doubted whether they were raised in full. Parliament also laid a weekly assessment of £437 10s. on Herefordshire for the support of their armies, and appointed commissioners for the county and the city 416 to form committees of administration. For the present, however, these measures had no practical effect owing to the county being almost entirely in the hands of the king.

<sup>413</sup> Nehemiah Wallington to George Willingham, 7 Oct. 1642, S.P. Dom. cccxcii, 32, printed in

Archaeologia, xxxv, 331-4.

414 Webb, Memorials, i, 194-5; Lords Journ. 21 Nov. 1642.

415 Perfect Diurnall, 2 Feb. 1642-3.

416 For the county, Sir Robert Harley, Sir Richard Hopton, Walter Kyrle, Edward Broughton, and Henry Vaughan; for the city, Sir Robert Harley, Walter Kyrle, Richard Hobson, John Flackett, and Henry Vaughan. Webb, Mem. i, 247; Rushworth, Hist. Col. III, ii, 313.

But early in 1643 Hereford was threatened by a new and formidable danger, for in March Sir William Waller came from the south into Gloucestershire, and on the 24th dispersed or captured a Welsh force at Highnam sent by Lord Herbert to keep Gloucester under observation. In the beginning of April he marched from Gloucester with 2,000 men and four pieces of ordnance and beat up Monmouthshire. Forced to retreat by the appearance of Prince Maurice he again issued forth on 23 April with 2,500 men, and marched through Ross to Hereford, which he found insufficiently guarded and forced to surrender on the 25th.417 Several prominent loyalists fell into his hands, including Lord and Lady Scudamore, Fitzwilliam Coningsby, the sheriff, and two commissioners of array, Sir Walter Pye and Sir William Croft. 418 The prisoners were sent to Gloucester, whence they were later transferred to Bristol. 419 Scudamore was sent to London, where he passed nearly three years in prison. The surrender caused great surprise at Oxford, the king's head quarters, and was attributed to treachery. Sir Richard Cave, who was in command of the royalist forces, was tried by court martial and honourably acquitted. By 27 April Waller had also occupied Leominster. 423 Heavy contributions were laid on the city and the surrounding country chiefly under the pretext of obtaining the arrears due to Parliament, 424 but Waller was not strong enough to occupy the city permanently, and on 20 May he fell back on Gloucester. On 29 May he failed in an attempt on Worcester, and on 9 June marched into Somerset to oppose Hopton, leaving in Gloucester Lieutenant-Colonel Massey with only a single regiment. Thus Herefordshire was for a time relieved from imminent danger, while in July the victories of Hopton at Lansdown and Roundway Down finally removed all peril from the side of Gloucester.

In the meantime the defence of the county was reorganized. Henry Lingen of Sutton Frene was appointed sheriff in place of Coningsby, and received a commission, dated 9 June, 1643, to raise a regiment of a thousand men. 425 As governor of Hereford Sir William Vavasour was appointed—an experienced, though not a fortunate, soldier. Relieved from apprehension of attack by Hopton's successes, Vavasour resolved to reduce Harley's castle of Brampton Bryan, which, though hitherto unmolested, had declined to acknowledge the king's authority. As has been already mentioned, Harley had fortified it at the commencement of the war. His wife Brilliana, daughter of Lord Conway, was in charge of the stronghold. On 26 July Vavasour wrote to Prince Rupert from Presteigne in Radnorshire, that he should be unable to realize half the contributions promised until he reduced Brampton Bryan. Accordingly he invested it on the same day, and when in August he proceeded to join Rupert in the neighbourhood of Gloucester he left Lingen to prosecute the siege. The investment continued seven weeks. Harley's live stock were driven off, his two parks and his warren

<sup>&</sup>lt;sup>417</sup> A detailed account of the operations and surrender by Cave is printed in Duncumb, Hist. of Heref. i, 245 et seq. and in Webb, *Memorials*, i, 274-83. See also Ludlow, *Memoirs* (1894), i, 444.

418 Webb, *Mem.* i, 262.

419 Mercurius Civicus, 11 to 18, 18 to 25 May, 1643.

<sup>420</sup> Webb, Mem. i, 269.

<sup>&</sup>lt;sup>421</sup> A Continuation of certain Speciall Passages, 3 May; Nicholas to Ormond, 3 May, Carte MS. E, 119. 422 See 'The Judgement of the Court of Warre upon the Charge laid against Sir Richard Cave, for the delivery up of Hereford,' reprinted in Webb, Mem. i, 283-4.

423 John Vicars, Parl. Chron. (1646), 315.

424 Cf. S.P. Dom. Chas. I, ccccxcviii, 108.

were laid waste, and Brampton village was reduced to ruins, but the castle still remained untaken when Lingen was compelled to retire on 6 September, on the news of the failure of the siege of Gloucester. Lady Harley, worn out by anxiety and hardship, died on 10 October, shortly after the siege was raised.<sup>426</sup>

Military interest now centred round Gloucester, the sole remaining parliamentary stronghold of importance in the west. Most of the Herefordshire levies took part in the siege, which lasted from 10 August till 5 September. On its unsuccessful conclusion Vavasour returned with the appointment, under Lord Herbert, of commander-in-chief of the counties of Gloucester and Hereford, and the title of colonel-general of Gloucestershire. He had it in his order to distress Gloucester from the side of Wales, and to garrison Tewkesbury,427 and he was to look for assistance to the Commissioners of Array. The monthly war contributions, which had fallen into arrears since Waller's inroad in April, were strictly collected through the chief constables of the hundreds, who were ordered to distrain upon all who refused to pay, and in failure of distress to bring them to Hereford. Vavasour was reinforced by a thousand foot and a hundred horse from the army in Ireland under William Saint-Leger and Nicholas Mynne, which landed in Bristol, and marching through Thornbury and Wotton, took up a position at Newent in Gloucestershire, just beyond the Herefordshire border. winter was passed in skirmishes in western Gloucestershire, between Tewkesbury and Newnham. These two posts on the Severn above and below Gloucester were held by the Royalists, but the intermediate course of the river was in the power of Parliament.

Early in 1644 the position of Herefordshire was affected by the adverse course of the war elsewhere, particularly by the defeat of Hopton at Cheriton on 29 March. In April Vavasour was recalled and a great part of his troops drafted off to reinforce Hopton. Partly to replace these the commissioners for the Associated Counties of South Wales were ordered to press 2,500 men, of whom Herefordshire's share was 600. At the same time the western administration was reorganized; Prince Rupert by a commission made out at the end of March was appointed president of North Wales, with the addition of the counties of Gloucester, Hereford, Monmouth, Brecknock, Cardigan, Carmarthen, and Pembroke. He also had the command of Staffordshire. On the departure of Vavasour Sir John Winter was left in temporary command of his district, but on 10 June Colonel Nicholas Mynne was placed in charge of the military forces in the counties of Gloucester and Hereford, and Monmouth was also placed under his care. 428

On 17 April Brampton Bryan, the only Parliamentary stronghold in Herefordshire, was compelled to surrender after a second siege of three weeks. After Lady Harley's death it had been held by Nathan Wright, the family physician, who had taken his share in the earlier defence under Lady Harley. On 13 March the neighbouring Puritan stronghold of Hopton in Shropshire had fallen, and its captor, Sir Michael Woodhouse, proceeded after an interval to lay siege to Brampton Bryan. The defence was gallantly conducted, but

in 1854.

Corbet, Military Government of Glouc. (Bibliotheca Glouc.), 59.

428 Webb, Mem. ii, 314-20. The letters of Brilliana, Lady Harley, were published by the Camden Society in 1854.

427 Corbet, Military Government of Glouc. (Bibliotheca Glouc.), 59.

the fate of the Hopton garrison, who were put to death for defending an untenable post, served as a warning against prolonging unduly a hopeless resistance. 429 The castle was entirely destroyed, and Sir Robert Harley subsequently estimated his losses at nearly £13,000.430 In 1661 his son, Sir Edward Harley, rebuilt the castle partly on its former site, where Brampton Bryan Hall now stands.431

About the middle of April, 1644, Massey at Gloucester was reinforced by Purefoy and his regiment of horse. In consequence Mynne was obliged to fall back with his reduced forces into Herefordshire, taking up his position at Ross, where he made himself a fortified post in the churchyard. Massey and Purefoy in turn occupied Ledbury, whence they levied contributions on the surrounding country, pushing their reconnaissances to the gates of Hereford, and on one of their expeditions murdering John Ralph, the aged vicar of Stoke Edith, on his acknowledging himself a Royalist. 432 In consequence of these inroads the king wrote to Rupert on 8 May recommending 'that Hereford should be fortified and placed under a governor.' 433 Rupert drove Massey from Ledbury by marching down the Severn and threatening to cut him off from Gloucester, but Massey in turn drew Mynne from Ross to Monmouth by advancing down the Severn to Lydney. He then pounced on Ross, which he occupied for a week, levying contributions on the county. Evacuating Ross on 22 May he captured Beverstone Castle and Malmesbury far on the other side of Gloucester, and then returning on 5 June he took Tewkesbury, thus loosening the Royalists' grip on the Severn, and forestalling the king himself, who arrived the next day at Evesham at the head of his army to secure the post.484 Roused by the urgency of the position the king on 12 June framed commissions for the governors of the counties of Hereford and Worcester, Mynne and Sir Gilbert Gerrard, giving them full authority in their respective shires to impress men and horses, to assess and levy contributions, and to imprison all persons justly suspected of disaffection. They had also a discretionary power to do anything they might judge to be for the advancement of the king's service; and the sheriff, commissioners for contributions, and all other civil officers were commanded to assist and obey them. 485 By this measure the civil officers were definitely subordinated to the military, whom hitherto they had been enjoined to assist rather than to obey. But on 27 July Mynne himself was defeated and slain by Massey near Redmarley in Worcestershire. 436 On Mynne's death Vavasour was appointed to succeed him, but it is doubtful whether he acted. Colonel Barnard then held the command until 10 September, when he was succeeded by Colonel Barnabas Scudamore, only surviving brother of Lord Scudamore. 437

146, 151-2; see also Webb, Mem. ii, 11-13, 359-61.

430 C. J. Robinson, Castles of Heref. 12-13; Silas Taylor, Hist. of Heref. in Harl. MS. 6766; The Beloved Disciple, Funeral Sermon of Sir Robert Harley by Thomas Froysell (1658).

437 Webb. Mem. ii, 80; Symonds's Diary (Camden Soc.), 195.

<sup>429</sup> Some interesting particulars of the siege are preserved in Warburton, Mems. of Pr. Rupert, ii, 135,

<sup>431</sup> C. J. Robinson, Castles of Heref. 15-16.

<sup>432</sup> Webb, Mem. ii, 16-22.

<sup>433</sup> Warburton, op. cit. i, 514.
434 Webb, Mem. ii, 28-36.
435 Harl. MS. 6802, fol. 169. Mynne's commission also confirmed him in the military authority already bestowed on him by Prince Rupert.

<sup>436</sup> Massey to the Committee of Both Kingdoms, printed in Cal. S.P. Dom. (1644), p. 396-8. For a eulogy of Mynne see Barksdale's Nympha Libethris, 9, xviii.

Towards the close of September Massey, with the aid of treachery, surprised Monmouth, and from this post harassed southern Herefordshire. He maintained a garrison there until 19 November, when during his absence the place was surprised and retaken by Lord Herbert. Massey, however, succeeded in saving the greater part of the garrison, but an outpost at Pembridge Castle within the Herefordshire border was compelled to surrender after holding out for a fortnight.<sup>438</sup>

On 6 November, 1644, Prince Rupert was appointed general of all the Royal forces, and his brother Maurice was made major-general of the counties of Worcester, Salop, Hereford, and Monmouth. Already by the defeat at Marston Moor on 4 July the north was lost to Charles, and in consequence before winter the forces in Herefordshire were reinforced by detachments of Royalist soldiers streaming southward, but debarred from crossing the Severn to their rendezvous at Bristol by the vigilance of Massey and the garrison of Gloucester. Hitherto the northern border of Herefordshire had been effectually secured by the hold of the Royalists on Shropshire. But on 22 February, 1644–5, Brereton took Shrewsbury by surprise, and the loss of the capital involved that of the whole county. Only the fortress of Ludlow shielded Herefordshire from invasion from the north, while the county of Worcester was similarly exposed. The situation, however, was saved for the time by the arrival of Rupert from Oxford, who, in conjunction with Maurice, occupied the Parliamentary forces in Cheshire and Shropshire.

But the country for some time had viewed with increasing discontent the exactions of the military authorities and the licence of the soldiers, particularly of the troops from Ireland. The hundred of Broxash in the north-east of the county was greatly disaffected.

Some could not, others would not, deliver in their contributions; and arrests and imprisonment had occurred among them. They complained of the behaviour of the Irish soldiery, and could obtain no redress; and the presence of the military was altogether so distasteful to them that the boys and girls learned to sneer at them in satirical ballads. Colonel Scudamore became so provoked at their thwartings and taunts that he is reported to have declared in some unguarded moment that he would 'hang the dogs and drown the whelps.' Be this as it may, violent and bitter language was vented against him and his men. The country people bade defiance to the book of orders under which he was acting, opposed the grant of quarters, recruits, or money, and threatened to burn the houses of such as through fear or affection appeared inclined to furnish them. 439

These feelings produced the associations of Clubmen in various parts of England, particularly in Dorset.

While, however, in Dorset the movement was mainly directed against the Parliamentary troops, in Herefordshire the Royalists were resisted. In the spring of 1645, when the annual stock of hay and fodder was low, the country people openly opposed Scudamore's attempts to levy contributions and seize fodder. Mustering 15,000 or 16,000 strong and reinforced by malcontents from the counties of Worcester and Radnor, many of them well horsed and armed, they presented themselves on 18 March before the city of Hereford. They complained particularly of the depredations of the garrison at Canon Frome, intended to secure communications between Hereford and Worcester. Scudamore immediately issued a proclamation 440

calling on the well-affected for support. On the other hand Massey promptly advanced to Ledbury at the head of 500 foot and 150 horse, and endeavoured to induce them to declare for Parliament. The Clubmen, however, replied that they conceived themselves able to keep the forces of both parties from exacting contribution and quarter in their county. Alarmed by Massey's intervention Scudamore pacified them by remitting a month's contributions and making other promises. About a week later Prince Rupert marching on Hereford dispersed a body of two thousand who still held their ground near Ledbury under the shelter of Massey. With a view to preventing similar troubles Rupert drew up a protestation to be tendered to the inhabitants of Herefordshire and Worcestershire, disclaiming the authority of Parliament and pledging those who signed it to hinder unauthorized associations. 443

On 22 April, 1645, Rupert, after throwing Massey off his guard by marching into north Herefordshire as if he meditated an invasion of Shropshire, suddenly turned, and sharply retracing his steps, surprised him at Ledbury by a night march and overthrew him, driving him out of the town, which he attempted to defend with barricades, with a considerable loss in prisoners.414 Shortly after a large number of pressed men were taken from the shire by Lord Astley to reinforce Charles I on his march from Oxford for the relief of Chester. Chester was relieved, but on 14 June came the crushing defeat of Naseby, which made Charles a fugitive. He turned his course to Hereford and South Wales. On 18 June, after dining at Bromyard, he arrived at Hereford.445 There he received the disquieting news of the defeat and death of Sir William Croft, one of his principal Herefordshire supporters, on 8 June at Stokesay in Shropshire. He endeavoured to raise fresh troops in the county without much success, the men deserting as soon as pressed, but before 30 June he succeeded in obtaining a considerable sum of money. On I July the king moved southward to Raglan, where he arrived on the 3rd. During the month the Royalists in Herefordshire were menaced by a greater danger than any they had hitherto encountered. The Scottish army in its southern march appeared at Persnore in Worcestershire, intending to pass the Severn at Upton. Finding the bridge unsafe they eventually crossed at Bewdley, and on 20 July halted at Tenbury within the northern border of Herefordshire. On the 22nd they took Canon Frome by storm, putting to the sword the governor, Colonel John Barnold, and the greater part of the garrison. The place received a new garrison under Colonel Edward Harley, Sir Robert's son, intended to hinder communications between Hereford and Worcester. On the following day the Scots reached Ledbury. They found marching difficult, the roads being bad and supplies scarce.447 On the 28th they had reached Mitcheldean in Gloucestershire. At this time the king was at Cardiff. His only forces in the district were about 2,000 men, chiefly cavalry, between Monmouth and Raglan, and about 3,000 more towards Ludlow. His situation was critical, for he was opposed by a force three times as numerous as his own. He complained

<sup>441</sup> Massey to the Committee of Both Kingdoms, 22 March, 1645, printed in Webb, Mem. ii, 154-5.
442 Corbet, Military Government, 188-90.
443 Printed in Webb, Mem. ii, 162-3.
444 Webb, Mem. ii, 177-82.
445 Symonds's Diary (Camd. Soc.), 195.

<sup>446</sup> Symonds's Diary (Camd. Soc.), 204-6.

to Scudamore of the deficiencies of the Herefordshire levies, 418 and enjoined the sheriffs to raise the posse comitatus in conjunction with Worcestershire and Shropshire. At the same time he was menaced from the west. On I August Laugharne, the Parliamentary commander in Pembrokeshire, inflicted a crushing defeat upon Sir Edward Stradling and the Royalists in that county. This reverse made the king's position untenable. On 5 August he left South Wales, and passing through Brecknock and Radnor eventually made his way to Oxford.

In the meantime Scudamore found himself invested in Hereford by the Scots who had turned back to reduce the city. On 31 July about 14,000 men sat down around it on every side. Traces of the works of the besiegers still remain, including the 'Scotch Rowditch,' while the ancient camps at Dinedor and Aconbury were occupied and strengthened on the south, the quarter from which succour might possibly come. Lord Astley, however, who commanded in South Wales, found it impossible to induce his forces to attempt to relieve the city. The besiegers had at first no heavy artillery and were annoyed by repeated sallies from the garrison, who were resolute and well handled. The arrival of heavier ordnance from Gloucester produced but little immediate effect, while the departure of David Leslie with nearly all the cavalry to oppose Montrose made it difficult for the Scots to collect supplies from the country. I September, when the besiegers were prepared to make a final assault on Byster's gate and the half moon next to St. Owen's gate, news was received that the king was close at hand and the Scots hastily broke up the siege.449 Although they failed in their object they did considerable damage to the county. The loss in 106 out of the 176 parishes in the shire was estimated at more than £31,000, and Parliament subsequently remitted four months' arrears of contributions in consequence of the damage done by the Scots on their return from the siege to Gloucester. 450

Charles, who advanced through Bromyard, entered the city on 4 September, and on the 7th he proceeded to Raglan to take measures to relieve Bristol. On 11 September, however, Bristol fell, and this catastrophe was shortly followed by the loss of Cardiff. Communications with Ireland and the Continent were almost cut off, and Charles sadly returned to Hereford, and then marched northward in the hope of saving Chester from Brereton. He reached Dorstone at the head of the Golden Vale, but finding the enemy too strong in his front, he turned aside to seek Worcester. On the 18th he reached Stoke Edith, when he heard that Poyntz and Rossiter had marched all night from Leominster to intercept him. In consequence he turned back to Presteigne, whence on the 21st he reached Chirk Castle. On the 23rd he entered Chester, but the following day his cavalry were overthrown at Rowton Heath. The Royal cause was rendered desperate by the destruction of that incomparable force of cavalry, more mobile than any body of corresponding size possessed by the enemy.

The effects of the loss of the protecting army were soon visible in the western counties. In October Monmouthshire was lost to the Royalists, while on 18 December Hereford itself was surprised during a severe frost. The enterprise was designed by Sir John Bridges and executed by Colonel

Birch, aided by the treachery of two officers of the garrison. 451 Scudamore escaped to Worcester, where he was thrown into prison for the loss of his fortress. In the whole county Sir Henry Lingen alone held out in Goodrich Castle. The governorship of Hereford was bestowed upon Birch, who had captured the city, 452 with £6,000 for the pay and reward of his soldiers, 453 and permission to keep up a strong regiment of 1,200 men, and to exercise martial law within the city and garrison. 454 In addition a body of cavalry under Major Hopton was sent down on 13 February, 1645-6, to strengthen his hands,455 while to counterbalance the purely military element Sir Robert Harley's son, Colonel Edward Harley, was made general of horse for the counties of Hereford and Radnor, 456 at the end of January. In March, when Birch and part of the garrison were occupied in the field in watching Lord Astley's movements, Lingen made a fruitless dash at the city. At the head of only thirty horsemen he charged the guards at the gate at high noon and was only repulsed because none seconded him from within.457 on 31 July, after Charles had given himself up to the Scots, and Oxford had been surrendered to the Parliamentary forces, Goodrich Castle capitulated to Birch. Lingen and the garrison received only the promise of their lives, and all the garrison were made prisoners of war. 458 Amongst them were representatives of most of the principal families of the county, who had rallied thither to make a last stand for the king. 459

On the conclusion of the war Birch purchased Hereford Castle on I August from Edward Page, the lessee of the crown, and put it partially in repair, using the lead roof of the chapter-house to roof the tower; but on 12 April, 1647, he sold it for £600 to the county members 'for the public use and defence of the county.' It continued in garrison under Lieut.-Col. Rogers until the Restoration in order to guard the approaches from Wales. In 1660 it was finally demolished. 460

Immediately after the capture of the city the Royalists of the county found their estates exposed to the effect of the ordinance of sequestration aimed against delinquents in April, 1643. The ordinance was enforced with great rigour. It was enough to constitute a man a delinquent that he had consented to reside for the protection of his property in a part that was controlled by the Royal forces. Even Sir John Bridges, who had a principal share in the surprise of Hereford, would have been sequestered but for the intervention of the Committee of Both Kingdoms.461 About two hundred and seventy persons compounded under the ordinance, and the fines recorded, though probably only a part of those received, amounted to £43,764 3s. 8d. In reckoning the losses of the Royalists there must be added the annual rents of estates not compounded for, and the confiscation of all the episcopal and cathedral property. adminster the ordinance under the central Committee of Sequestrations five

<sup>451</sup> Military Memoir of Col. Birch (Camd. Soc.), 23-30, 219-23; Lords Journ. 22 Dec. 1645; Com. Journ. 22 Dec. 1645; Symonds's Diary (Camd. Soc.), passim. 453 Lords Journ. 25 Dec. 1645.

<sup>452</sup> Cal. S.P. Dom. 1645-7, p. 273; Lords Journ. 22 Dec. 1645.
458 Lords Journ. 16 Jan. 1645-6; Com. Journ. 3 Jan. 1645-6.
455 Webb, Mem. ii, 258.
456 Com. Journ. iv, 401; Lords Journ. viii, 93.

<sup>467</sup> Webb, Mem. ii, 277; Cal. S.P. Dom, 1645-7, pp. 394-5.
468 Webb, Mem. ii, 258-64, 277-80, 413-18; Military Memoir of Col. Birch, 31-3, 124-32.
469 Robinson, Castles of Heref. 68.
460 Webb, Mem. ii, 420-2; S.P. Dom. Chas. II, xviii, 120.

<sup>461</sup> Cal. S.P. Dom. 1645-7, p. 473.

Parliamentary Commissioners 462 were appointed for the county and five for the city, but the management of affairs was far from satisfactory. In 1648 George Thorne was sent into Herefordshire by the House of Commons as a 'solicitor for sequestrations,' and his report disclosed much maladministration and corruption. About April, 1648, the county sequestrations were suspended by an order from Goldsmiths' Hall, this having already been done a twelvemonth before as regards the hundreds of Huntington, Ewyas Lacy, and Wigmore. They were shortly resumed, and on 4 September, 1649, seven new commissioners were added,463 most of whom had resigned or were displaced in 1651. About March, 1652, four were discharged for unsatisfactory accounts, and four sub-commissioners appointed to be the acting men.464

The military charges on the county also were heavy. On 14 February, 1646-7, Parliament passed an ordinance for taxing it £600 a week for the maintenance of the forces in it.465 On 22 June, 1647, the county was charged with £168 2s. 3d. as its share of a general levy of £60,000 a month for the pay of the army, in addition to which money was exacted in composition for

free quarter.466

These heavy contributions served to increase the differences which, after the conclusion of the first civil war, arose between the army and the civil authorities. While Herefordshire was in the hands of the king, the management of affairs in the Parliamentary interest was entrusted to the standing committee for the county and city of Gloucester, which also supervised the counties of Glamorgan, Brecon, Radnor, and Pembroke, where as yet Parliament had no established hold. But after the capture of Hereford city a separate committee was established for the county to carry on the civil and ecclesiastical administration. One of its leading members was Sir Robert Harley, and between this committee and the military governor, Colonel Birch, considerable friction arose on the subject of pecuniary exactions. The committee sympathized with Parliament in their desire to reduce the numbers of the army. On 1 March, 1646-7, Hereford city was ordered to be disgarrisoned, 467 and on 15 June the governorship of the castle was committed to Colonel Samuel Moore with 160 men. 468 It was also arranged on 26 March that Birch, on receipt of two months' pay for his men and some pay in advance, should send over to Ireland by Chester a force of one thousand foot and three or four hundred horse. This arrangement, however, fell through: the money was not forthcoming, in spite of the efforts of Harley and the other members of Parliament. The men also were unwilling. They distrusted Birch on account of his Presbyterian leanings, and perhaps also because of his position as a landowner in the county and member of Parliament for Leominster. In the middle of July they broke into open mutiny. On the ground that they were hindered from communicating with the rest of the army, they seized upon Birch and his brother, Major Samuel Birch, Hereford Castle, £2,000 in money, and various stores. Birch only obtained

<sup>462</sup> For the names of the sequestrators appointed between 1643 and 1653 see Webb, Mem. i, 25-6; ii, 307.

463 Com. Journ. 4 Sept. 1649.

465 Lords Journ. 13, 14 Feb. 1646-7.

467 Com. Journ. 1 March, 1646-7.

468 S.P. Dom. Chas. I, dxv, 82; Com. Journ. 15 June, 1647; Lords Journ. 15 June, 1647.

his liberty on promising not to engage against the army.469 Birch complained to the House of Commons, and at their request Fairfax ineffectually ordered the troops to proceed to Ireland. 470 Soon afterwards Birch resigned his command, which was incompatible with his position as a member of Parliament, and was succeeded by Colonel Humphreys. In January, 1647-8, Humphreys attempted to disband the troops in obedience to special instructions from Parliament conveyed through Colonel Edward Harley, but the soldiers refused to separate until £5,000 arrears were forthcoming. Before October, 1648, they succeeded in obtaining arrears for two months, and left the county.

The county also took part through its representatives in the strife between Parliament and the army. Sir Robert Harley was incapacitated by ill-health, but his son, Colonel Edward Harley, who was returned for Herefordshire on 11 September, 1646, on the disabling of Humphrey Coningsby, took a prominent part in opposing the army. In consequence, he was one of the eleven members specially accused on 16 June, 1647,471 and ten days later he was compelled to withdraw from the House.<sup>473</sup> About June, 1648, he resumed his seat, but on 6 December he and his father were among those turned back by Colonel Pride from the House of Commons and, resisting, was placed in confinement with other recalcitrants. Birch, who had likewise voted for treating with the king, was also imprisoned. 478 On 12 December the Harleys were finally expelled. 474

The second outbreak of civil war in 1648 had little effect in Herefordshire, although both to the north and south of the county serious conflicts took place. On 10 May Parliament gave power to the county committee to arrest the disaffected. On 21 July the House of Commons received information of a design for a rising in the counties of Salop, Stafford, Worcester, and Hereford, to be accompanied by the seizure of Hereford Castle. The plot, however, had been detected by Captain Yarrington, and Major Harcourt and some other Royalists arrested. 475 Notwithstanding, Lingen, who had taken the Covenant on 23 November, 1646, and the Negative Oath, restraining him from any further attempt against Parliament, on 2 December, drew together a body of horse in September, 1648, and attacked Colonel Edward Harley's county troop near Leominster, taking eighty prisoners. But two or three days later he was defeated between Radnor and Montgomeryshire by Harley and Thomas Horton. All the captives were recovered, and Lingen himself seriously wounded and taken prisoner. He escaped with a heavy fine, which forced him to sell part of his estate, and a term of imprisonment.476

Herefordshire was almost unaffected by the invasion of England by Charles II and the Scots in 1651,477 although a party of cavalry penetrated into the county and destroyed two bridges on the Teme. 478 Birch, however, who had settled at Whitbourne, joined the king at Worcester with his brother, Major Samuel Birch, and in consequence had his estate sequestered.

<sup>469</sup> Fairfax Corresp. i, 370. 470 Com. Journ. 19 July, 1647. 471 Rushworth, Collections, vi, 570.

<sup>472</sup> Com. Journ. 26 June, 1647. <sup>478</sup> A True and ful Relation of the Officers and Armies forcible seising of divers Eminent Members of the Commons House, 1648.

<sup>474</sup> Com. Journ. 12 Dec. 1648. 475 Lords Journ. 21 July, 1648. 476 Cal. of the House of Lords, 1648; Com. Journ. 10 Nov. 13 Dec. 1648; Cal. S.P. Dom. 1648-9, p. 246; 477 See Cal. S.P. Dom. 1651, p. 348, 376, 439-40. Lord Byron, Account of my Proceedings. 478 Whitelocke, Memorials (1682), p. 482.

### POLITICAL HISTORY

Royalist feeling was really strong in the county, as is shown by an examination of the Parliamentary returns during the Commonwealth. In July, 1653, the county and city returned two members respectively to the Nominated Parliament. In spite of the fact that the members were not freely elected, one of the city representatives, Bennett Hoskins, was afterwards accused of having borne arms for the king. With the establishment of the Protectorate, the Royalist feeling became more marked. In July, 1654, the county returned four members to Cromwell's first Parliament, while the city and Leominster furnished one each. Bennett Hoskins sat for the city, and Colonel Birch, by this time a known reactionary, for Leominster; while one of the county representatives, Richard Reade, was accused, in a petition to the Protector, of having been on the king's side, and of still associating only with malignants. 480

In March, 1655, the rising of Grove and Penruddock occasioned the division of England into administrative districts under the major-generals. The counties of Hereford, Worcester, Salop, and North Wales were placed under James Berry. On 24 November, 1655, he wrote to Thurloe that he found the gentry well disposed to the existing government, and that Birch, who on the news of Penruddock's outbreak had been promptly placed in Hereford gaol by Colonel Wroth Rogers, the successor of Moore as governor of Hereford Castle, was still in custody, but seemed desirous of peace and settlement. Berry's rule was kindly and indulgent, in accordance with Cromwell's wishes.

In 1656 Colonel Edward Harley was returned to Parliament for the county, but was among those secluded by Cromwell, 482 while Colonel Birch

was not permitted to take his seat for Leominster. 483

In 1658 the excise was only collected with difficulty, in consequence of the reluctance of the justices of the peace to support the collectors. 484 parties of insurgents appeared in the neighbourhood of Hereford. 485 theless, the representatives sent to the Parliament of January, 1659, were none of them pronounced opponents of the existing government. country was so weary of war that in the last rising of the Royalists under Sir George Booth in 1659, the arrest and imprisonment of a few persons by Hugh Jenkins, the deputy-governor of Hereford Castle,486 under Rogers, sufficed to keep it quiet. When Monck seized the reins of government early in 1660 he replaced Colonel Wroth Rogers as governor of Hereford by Green, however, being inimical to the restoration of Captain Green. Charles II, was in turn superseded by Captain Henry Leicester. 487 When he heard of his displacement he fetched arms by night from the garrison and gave them to friends of the Commonwealth. He did not, however, venture openly to resist Leicester. 488 Colonel Birch actively assisted Monck, and was one of his Council of State. 489 After the Restoration he took up his residence at the Homme near Leominster, which borough he represented in the Convention Parliament, afterwards sitting for Weobley from 1678 till his death in 1691.

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479 S.P. Dom. Interregnum, lxxiv, 85, 110.
481 Thurloe, State Papers (1742), iv, 237.
483 Thurloe, State Papers, v, 453.
485 Ibid. 1659-60, pp. 55, 68, 81, 87, 172.
487 S.P. Dom. Chas. II, xxviii, 34.
488 Ibid. xxiii, 71, I.
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<sup>&</sup>lt;sup>480</sup> S.P. Dom. Interregnum, lxxiv, 109, 110.
<sup>492</sup> Whitelocke, *Memorials*, 651-3.
<sup>484</sup> Cal. S.P. Dom. 1658-9, p. 76.
<sup>486</sup> Com. Journ. 30 July, 1659.

<sup>459</sup> Kennett, Register, 66.

In the Convention Parliament of April, 1660, Colonel Harley and Colonel Birch reappeared for the county and Leominster respectively, while in November the Royalist soldier, Sir Henry Lingen, filled one of the city seats which was vacant. At the general election in April, 1661, there was an obstinate contest for one of the city seats between Herbert Westfaling, who had acknowledged the Commonwealth, and Sir Edward Hopton, a staunch Royalist. The mayor strongly espoused Hopton's candidature, and in consequence a double return was made which necessitated a second poll, at which Lingen and Westfaling were duly returned.<sup>490</sup>

At the Restoration the Herefordshire gentry, like those of many other counties, presented an address of laudation and congratulation to the king.491 Even Colonel Edward Harley, whose father had been so distinguished in opposition to the crown, was foremost in promoting the return of the king, and in reward was appointed governor of Dunkirk on 14 July, 1660. in a year, however, he surrendered this appointment, the crown having determined to sell the town to France.492 Although the county was Royalist in sentiment there were a few individuals of opposite opinions. articles drawn up against Thomas Baskerville of Eardisley he was not only accused of being the first to sign a petition for bringing Charles I to justice, and of causing Charles II to be proclaimed a traitor after the battle of Worcester, but also of taking a list of those who made bonfires on the news of the king's arrival and of threatening them with punishment. 498 On 10 July, 1661, a petition, numerously signed, was presented by the inhabitants of the city and county of Hereford, praying for the restoration of the Court of the Council of the Marches on the ground that the expense of taking ordinary cases to Westminster for trial was three times as great. Similar petitions were presented from Worcestershire and Shropshire. 494 These petitions were answered by the reconstitution of the court under the presidency of Lord Carbery for Wales and the Marches. 495 To please the earl of Clarendon the counties of Worcester, Gloucester, Salop, Hereford, and Monmouth were not specifically mentioned in the patent, the earl of Carbery thinking that they would be included in the Marches. The courts at Westminster, however, took advantage of the omission to remove the counties from the jurisdiction of the Court of the Council of Wales by means of a prohibition, and thus the long controversy was finally determined against the council. 496

The county remained quiet during the disturbances in the years immediately following the Restoration. Protestant Nonconformity had in fact little hold, and therefore the Acts directed against it were not resented. At quarter sessions in 1663 of 150 Nonconformists presented by the grand jury almost all were Roman Catholics, only twenty being 'fanatics.' The pressure of taxation was still acutely felt on account of the extreme poverty of the county, and in 1666 the collection of hearth money occasioned a serious riot in the city owing to the resistance of householders whom the

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    490 Richard Johnson, Anct. Customs of Heref. (1882), pp. 206-11.
    491 S.P. Dom. Chas. II, i, 32.
    492 Collins, Hist. Coll. 201-5.
    493 S.P. Dom. Chas. II, iv, 97.
    494 Ibid. xxxix, 40-7.
    495 P.C. Reg. 24 Aug. 1661.
    496 S.P. Dom. Chas. II, ccciv, 49.
    497 Thomas Trench to Williamson, 12 Oct. 1663, S.P. Dom. Chas. II, lxxxi, 65.
    498 Humphrey Cornwall to Thomas Price, 26 Jan. 1663-4, S.P. Dom. Chas. II, xci, 42.
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collectors endeavoured to distrain. 499 The lord-lieutenant of the county, Lord Herbert of Raglan, arrived on the scene, cashiered the town company, and committed the offenders to prison.500

The defeat of the Exclusion Bill and the rout of the Whig party in 1681 was followed by an attack on the charters of the parliamentary towns with a view to rendering them more amenable to the influence of the crown. Hereford had received a charter of incorporation from Elizabeth in 1597 and a regrant from James I in 1620. This charter was resigned on 14 March, 1681-2, and a new one received on 28 April. In this charter Charles II reserved to himself the confirmation of the appointment of chief steward, aldermen, and town clerk, thus encroaching upon the ancient privileges of the city. 501 On 15 May the mayor and council of the city sent a strong address to the king in support of his opposition to the Whig party. 502

On 15 January, 1685, Charles II, in pursuance of this policy of controlling the House of Commons, also issued a new charter to Leominster reducing the burgesses from twenty-four to fifteen. His measures, however, proved insufficient for the purposes of James II, who in 1688 three times removed officers of the borough and appointed others likely to be more subservient. 508 Shortly before his abdication, however, James II restored to

these two places their ancient charters.

At the time of the Revolution, although Sir Edward Harley raised a troop of horse to assist William of Orange,504 and occupied Worcester with the assistance of his eldest son, Robert, afterwards the famous Tory leader and earl of Oxford, while his second son, Edward, met the prince at Salisbury, yet Herefordshire as a whole again showed itself attached to the hereditary succession. In December, 1689, the earl of Shrewsbury was informed by Sir John Morgan, the governor of Chester, that there were a large number of malcontents in the county, a state of things which Morgan attributed to the spread of false reports. 505 In consequence Shrewsbury wrote on 26 December, 1689, to the mayor of Hereford instructing him to make an example of some of the seditious newsmongers and incendiaries, 506 and several were committed to prison. 507 Somewhat later, in July, 1693, the mayor was commended for his zeal in detecting and securing such persons as disturbed the government. 508

Between 1689 and the Reform Bill of 1832 the majority of parliamentary representatives returned by Herefordshire and its boroughs was decidedly Tory. Even the great Robert Harley, when he began parliamentary life as a Whig, was obliged to seek a seat at Tregony and New Radnor, and was never throughout his career politically connected with the county, though he was buried at Brampton Bryan and took one of his titles, that of Baron Harley of Wigmore, from the shire.

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<sup>499</sup> H. Muddiman to John Witty, 24 Nov. 1666, S.P. Dom. Chas. II, clxxix, 41; John Fitzherbert to Williamson, 1 Dec. 1666, ibid. clxxx, 5; John Allen to Williamson, 3 Dec. 1666, ibid. clxxx, 41.

500 Fitzherbert to Williamson, 5 Dec. 1666, ibid. clxxx, 88.

<sup>501</sup> Richard Johnson, Anct. Customs of Heref. (1882), p. 59.
502 Ibid. 216-18.
503 Townsend, Hist. of Leominster, 151-4.
504 Ibid. 173.
505 Shrewsbury to Morgan, 26 Dec. 1689, S.P. Dom. William and Mary, Home Office Letter
Book (Secretaries), i, 219. <sup>506</sup> Ibid. i, 220.

<sup>&</sup>lt;sup>507</sup> Shrewsbury to mayor, 30 Jan., 1, 4 March, 1689-90; ibid. i, 249, 279, 283. 508 Sir J. Trenchard to mayor, 26 July, 1693, ibid. iii, 125.

From 1698 to 1774 the county returned only Tory members, and so small was the Whig interest that only twice did it furnish a candidate—in 1722 and in 1754. On 12 October, 1774, Sir George Cornewall of Moccas Court succeeded in defeating Thomas Harley, an army contractor, and son of the third earl of Oxford. Army contractors were particularly unpopular at the time of the war of American independence, but Harley got in in 1776 in place of the Tory member, Thomas Foley, created a baron. The Whigs retained this seat permanently, and made unsuccessful efforts to capture the second in 1776, 1796, 1802, and 1818. In 1831, on the eve of the passing of the Reform Bill, two Whigs were at last returned unopposed.

The city returned two Whigs to the Convention Parliament of January, 1688-9, but on 11 June one seat was captured by Henry Cornewall in the Tory interest. In 1698 the Tories gained the other, and retained both until 1713, when on 31 August James Brydges, afterwards duke of Chandos, who had sat as a Tory from 1698, but was really a supporter of Godolphin and Marlborough, was returned as a Whig. But in 1715 he did not seek reelection owing to his elevation to the peerage as earl of Carnarvon, and though he nominated two Whig candidates they were both unsuccessful, to his great annoyance. In 1717, however, at a bye-election Herbert Rudhale Westfaling, the Whig candidate, was elected. In 1723 the Whigs gained the second seat, but lost it again four years later. In 1734 the Tories carried both seats and held them until 1747, when Henry Cornewall, a Whig, was returned head of the poll. The borough continued divided until 1784, when the strong local feeling in favour of Charles James Fox caused the return of his boon-companion, the earl of Surrey, afterwards eleventh duke of Norfolk, to the second seat. On 27 August, 1785, Fox himself received the freedom of the city in consideration of his distinguished abilities and patriotic virtues. Not until 1818 did the Tories succeed in recapturing one This they retained until 1832.

Puritan Leominster returned two Whigs to Parliament from the time of the Revolution until 1701, when Edward Harley, the brother of the statesman, succeeded in gaining a seat. In 1710 the Tories captured the second, but lost it again in 1715. From 1722 to 1734 the Whigs returned both members, while from 1742 to 1774 the representation was divided. In 1774 the Tories held both seats, and though they lost one in 1780, they regained it in 1784, when Sir Gilbert Elliot, afterwards earl of Minto and governor-general of India, was the unsuccessful Whig candidate. He had no connexion with the county. In 1797 the Whigs gained one seat at a bye-election, and they not only retained it at the general election of 1802, but gained the other. They failed, however, to hold them permanently, and down to 1832 the representation fluctuated between the two parties. In 1806 William Lamb, afterwards Viscount Melbourne and Prime Minister, sat for the borough.

Weobley distinguished itself in 1747 by returning Mansel Powell, an attorney of Hereford, who acquired possession for twelve years of the Eardisley Court property by means of a forged will, but he was unseated on petition. About the beginning of George III's reign it became a pocket borough of Lord Weymouth's, who bought up all the ancient vote houses and returned

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Bedford Whigs and later 'king's friends.' The Marquis of Titchfield, afterwards duke of Portland, and First Lord of the Treasury in 1783 and 1807, represented the borough in 1761, and John Scott, afterwards Lord Chancellor and earl of Eldon, from 1783 to 1788.

The Reform Act of 1832 gave the county an additional member, and disfranchised Weobley entirely. Thus the total number of representatives was reduced from eight to seven. Under the new franchise the county representation was divided between the parties. The most distinguished member during this period was George Cornewall Lewis, the Liberal statesman, who sat for the county from 1847 to 1852. He was descended through his mother from the Cornewalls of Moccas. The city with its enlarged franchise became definitely Liberal. Leominster evinced no decided political preferences between 1832 and 1857, but for the next ten years it returned Conservatives exclusively. The Redistribution Bill of 1867 reduced the total representation to six by depriving Leominster of one of its members, while in 1885 the total was further reduced to three. Single members were assigned to north and south Herefordshire and the city of Hereford respectively, Leominster being merged in the northern county division. Sir James Rankin sat as Conservative member for North Herefordshire from 1886 till 1906, when he was defeated by the Liberal candidate, Mr. E. G. Lamb, by a majority of only twenty-eight. South Herefordshire returned Mr. Michael Biddulph from 1885 to 1900, first as a Liberal and then as a Liberal-Unionist. In 1900 Captain Clive was returned unopposed as a Unionist, but in 1906 he was defeated by Lieut.-Colonel Gardner. In 1886 the city returned Sir J. R. Bailey, a Conservative, but in 1892 Mr. W. H. Grenfell gained the seat for the Gladstonian Liberals. It was lost again at a bye-election in the following year, and has since been retained by the Conservative party.

The 36th Regiment of Foot, afterwards named the Herefordshire Regiment, was originally raised in Ireland by William Viscount Charlemont in 1701 under a royal warrant dated 28 June. From an early period it wore the 'grass-green' facings which it so long retained. But it was in no way connected with Herefordshire until 1782, when by a letter dated 31 August it was directed to assume the title of the Herefordshire Regiment with a view to recruiting it particularly from that county. It proceeded to India in 1783, took part in the campaigns against Tipu Saib in 1790, 1791, and 1792, and in the capture of Pondicheri in 1793. In 1799 it returned home, and from 1800 to 1802 was stationed in Minorca. In 1804 a second battalion was added to the regiment to be raised from the county of Durham. In 1806 the first battalion served in Germany, and in 1807 at Buenos Ayres. In July 1808 it proceeded to Portugal, took part in combat at Rolica on 17 August, and in the battle of Vimiera, on 21 August, where Wellesley declared in a letter to Castlereagh that its conduct was an example to the army. It shared in Moore's advance into Spain, and at the battle of Coruña on 16 January, 1809, was posted on the left of the English line. In August it took part in the disastrous Walcheren expedition, and suffered severely from disease. In March, 1811, it joined Wellington's army in Spain, fought at Salamanca on 22 July, 1812, in the Pyrenees in July, 1813, at the passage of the Nivelle on 10 November, and of the Nive on 9 December, at the battle of Orthez on 27 February, 1814, and at the final engagement of

Toulouse on 10 April, where it was highly distinguished and incurred heavy losses. After the conclusion of peace the second battalion was disbanded on 24 October, 1814. From 1817 to 1825 the regiment was stationed at Malta and the Ionian Islands, and from 1830 to 1842 in the West Indies and North America. In 1846 it was formed into two battalions, and in the next year the first and reserve battalions were sent to the Ionian Islands, whence it was removed to the West Indies in 1851. Returning to the British Isles in 1857, it remained there until 1863, when it was transferred to India for the next twelve years. From 1875 to December, 1899, it was stationed in England and Ireland. In the meantime, in consequence of the reorganization of the army, it was brigaded in 1873 with the 29th or Worcestershire Regiment and the Herefordshire and Worcestershire Militia, and afterwards became the second battalion of the reconstructed Worcestershire Regiment.

This 2nd battalion went out to South Africa at the beginning of 1900, landing at Cape Town on 8 January, and was dispatched to Colesberg, where Major-General A. P. Clements was stationed to restrain the Boers from advancing into Cape Colony, before Lord Roberts's great turning movement was completed. The battalion was hotly engaged on 12 February. They had even before the war been famed for their marksmanship, and by the accuracy of their fire they succeeded in beating back a determined attack on the Worcester Hills near Rensburg, with the loss of their gallant commander, Major Stubbs, and of seventy-three killed and wounded. 27 February Roberts forced Cronje to surrender at Paardeburg, and Clements joined in the advance. The battalion crossed the Orange River near Norval's Pont, on 15 March, and until August was engaged in operations in the east of the Orange Free State, including the combined movement in the Wittebergen under Generals Hunter and Rundle, which culminated in the capture of Prinsloo and 4,000 Boers near Fouriesburg. From August, 1900, till May, 1901, they were engaged in the Western Transvaal, and from May. 1901, until the conclusion of peace they were placed in garrison at Heilbron, holding the blockhouses between Heilbron and Wolvehoek and Heilbron and Frankfort.

At the time of landing at Cape Town a company was drafted from the battalion into the newly formed Mounted Infantry under Lieutenant-General French. It took part in the relief of Kimberley on 15 February, 1900, in the actions at Paardeburg on 18 February, and at Driefontein on 10 March. It was present at the occupation of Bloemfontein on 13 March and of Pretoria on 5 June, and also took part in several engagements in the latter part of the war. In October, 1907, the 2nd battalion of the Worcestershire regiment was stationed in Bengal.

The Herefordshire Militia forms at present (1907) the 4th battalion of the Shropshire Light Infantry, and was last embodied from 12 December, 1899, until 1 November, 1900, at the time of the South African War.

During the great struggle with Napoleon at the beginning of the last century Herefordshire contributed its share to the volunteer forces of the country. In 1804 the various county corps had a total in effective rank and file of 3,532 men. Again, during the crisis of the late South African War,

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Herefordshire men answered readily the call to arms. The volunteers of the shire are at present attached to the Shropshire Light Infantry, and a cadet corps is furnished by the Cathedral School at Hereford. But an organization of the Territorial forces of the Crown is now proceeding which may considerably affect the old order.

EREFORDSHIRE is about the same size as the counties of Cambridge, Nottingham, and Warwick, approximately 40 miles in length and 34 in its greatest breadth, its area being 550,015 acres. Its surface is generally hilly, finely diversified and watered by many rivers and streams, of which the chief are the Wye, Lugg, Teme, Arrow, Frome, Leadon, Dore, Monnow, and Garron. Geologically the whole of it belongs to the Old Red Sandstone formation, and the general character of the soil is a mixture of marl and clay containing much calcareous earth. Towards the western borders the soil is frequently cold, sterile, and of a clayey character, retentive of moisture; the eastern side of the county is generally a very tenacious stiff clay, and a large portion of the hundred of Wormelow on the south consists of a light sand. The climate is extremely healthy, and varies considerably according to the elevation and exposure, some of the uplands being very bleak. The great mass of the people are engaged in agriculture, manufactures being of little importance. There is very little waste land in Herefordshire, the largest tract lying on the eastern side of the Hatteral Hills, where the steepness of the slopes and the barren soil do not encourage improvement. Thomas Fuller, who died in 1661, said that Herefordshire 'doth share as deep as any county in the alphabet of our English commodities though exceeding in W for wood, wheat, wool, and water.' Its green orchard alleys made it seem to him a more favoured spot than Pomerania; the Golden Valley produced wool so long and lustrous in its fibre that there was no need for its flock masters to envy the Tarentine and Apulian. Its wheat, too, was worthy to jostle in pureness with the wheat of Heston in Middlesex, which furnished manchets 1 for the kings of England.

The industry of Professor Thorold Rogers has fortunately collected for us some statistics of Herefordshire agriculture in the Middle Ages. There seems to be no doubt that from the death of Edward I to the accession of the House of Tudor agriculture in England hardly advanced at all, and in the absence of evidence to the contrary it is not to be supposed that the county of Hereford differed from the rest of the kingdom. The common-field system was practically universal, and a very wasteful system it was; the land could never be properly ploughed, as the long, narrow strips into which the fields were divided could not be cross-ploughed.2 Owing to the absence of turnips and clover and the scarcity of manure, for there was hardly any wintering of stock, land was fallowed every three years or sometimes two years in three. But fallowing alone could not keep the land in good heart, so that by the end of the 15th century the arable land was becoming worn out. The average crop of wheat was only five or six bushels per acre,<sup>3</sup> although two and a half bushels of seed was usual, and in 1329 this was selling at 'Leynthale' at from 6s. 8d. to 8s. per quarter, equal to about 100s. and 120s. of our money. Prices fluctuated enormously, as, of course, foreign importations were slight, and in addition to this the roads were so bad that wheat might be dear in one part of the country, and cheap in others. In 1343, at Malmeshull, wheat was selling at from 35. 7d. to 45. a quarter, and oats from 15. 6d. to 25. 2d. In 1352 it varied at the same place from 5s. 4d. to 14s. 8d., whereas oats kept much the same price, 4s. to 4s. 8d. The average price of wheat at this time was 5s.  $10\frac{3}{4}d$ . a bushel, but often just after harvest it was much cheaper, and if the stock was exhausted before the next harvest much dearer. According to the accounts of the Knights Hospitallers' estates published by the Camden Society, arable land in Herefordshire in 1338 was let at from 4d. to 8d. an acre, about the normal rent of the time, and meadow-land at from 12d. to 18d., the usual price being 2s.

<sup>1</sup> Manchets were loaves of the finest wheaten bread.

<sup>3</sup> Walter of Henley says: 'You know on the acre it is necessary to sow at least two bushels, at three times your sowing you ought to have six bushels worth 3s.' Walter of Henley's Husbandry (Royal Hist. Soc.), 17. For the five years, 1243–8, the average crop of wheat at Combe (Oxon.) was five bushels per acre.

<sup>&</sup>lt;sup>2</sup> The average rent of arable land from the 13th to the beginning of the 16th century was practically unchanged. 6d. an acre for communal, and 8d. for inclosed was about the average; the freehold was worth about twelve years' purchase, rising to twenty in the 15th century. Thorold Rogers, Six Centuries of Work and Wages, 89.

Herefordshire in the 14th century was evidently a very poor county; in the wool tax levied in 1341 it was assessed at 140 sacks, 25 stone,  $13\frac{1}{2}$  lb., or a sack to each 3,700 acres of the modern area, the lowest assessment in England except the then poor northern counties of Cumberland, Lancashire, and part of Yorkshire.<sup>5</sup>

In 1437 there is record of an ox being sold at 'Colynton,' probably Collington, for 10s., and a horse for 13s. 4d., and at the same place, in 1496, 20 ewes fetched  $8\frac{1}{2}d$ . each. The ox at this time was dearer than the cow, and the breed was probably the small ox now found in Scotland and other hilly countries, the average price being about 13s. The horse sold at 'Colynton' must have been a very bad one, as the price is far below the average, a good sound animal being worth about 40s.

Oxen were generally preferred for ploughing; Walter of Henley quaintly says, 'a plough of oxen will go as far in the year as a plough of horses because the malice of the ploughman will not allow the plough of horses to go beyond their pace no more than the plough of oxen.' Also on hard ground 'where the plough of horses will stop the plough of oxen will pass.' Further, the horse cost more than the ox to keep and shoe, 'if he must be shod in all four feet, and when the horse is old and worn out there is nothing but the skin, but when the ox is old with ten pennyworth of grass he shall be fit for the larder.' Even at the end of the 18th century William Marshall was of much the same opinion.

The county seems to have grown wealthier in the 15th century. In 1453 the commons granted 13,000 archers to Henry VI,8 with the hopes of recovering the English possessions in France, for the English people were firmly persuaded that their loss impoverished England. In the assessment for this grant Herefordshire was to furnish 130 archers costing £591 10s. This was not very high. Norfolk was assessed at 1,012 archers costing £4,604 12s., Gloucestershire at 424 costing £1,929 4s., and Salop at 192 costing £873 12s., still there were now ten counties with lower assessments than Hereford. Fifty years later came another assessment, when Henry VII, always eager to get money, levied the almost obsolete feudal aids, which a sovereign could claim, for knighting his eldest son and marrying his eldest daughter. The tax was to be paid by all persons who had above 20s. a year in 'free charter lands,' or above 26s. 8d. in copyhold lands. Cattle used for the plough, stock, and implements for household use were excluded, but farm produce, harvested corn, and stock-in-trade were rateable. The commissioners employed to assess the aid were some of the most considerable gentlemen in the county, who assessed it at £363 14s. 0\frac{3}{4}d., or £1 to 1,470 acres, which was the lowest assessment in England but nine.

Wool during this period was always in demand, and it therefore gave a larger return than any other farm product; English wool was famous, and the best wool in England was grown at Leominster. In a petition presented by the House of Commons in 1454 that certain qualities of wool should not be exported except at the prices assigned to each in the schedule annexed to the petition, probably with a view to encourage English weaving, the 'Herefordshire wolle in Lemyster' is far higher than any other, being rated at £13 the sack, or £1 the tod. The next to it in value also comes from the neighbourhood, the 'soke of Lemster,' which with that from the 'march of Shropshire' is valued at £9 5s. 4d. a sack. Wool from 'the rest of Hereford' was worth £5 6s. 8d. The lowest county on the list is Sussex, whose wool was put at £2 10s. only.

Towards the end of the 15th, and during the 16th century, inclosures of large parts of the manor waste became frequent, partly owing to the worn-out condition of the tillage land, and partly to the high price of wool. Inclosures were very unpopular, since they sometimes occasioned evictions, and the new men, who in many places succeeded nobles impoverished by war or extravagance, screwed up the rents. Yet the inclosures were a great improvement from the standpoint of scientific agriculture, and inclosed land was worth 25 per cent. more than uninclosed. In the aggregate, however, no great quantity was inclosed, and if we may judge by the rest of England, at the end of the 17th century half the land in the country was waste, and a great part cultivated on the old common-field system till the middle of the 18th century, for it is to Arthur Young more than any man that we owe the inclosure of wastes and the extinction of open fields.

In 1610 we have what is no doubt one of the first accounts of irrigation in England, written by a Herefordshire gentleman, Mr. Rowland Vaughan, who 'having sojourned two years in his father's house wearied in doing nothing and fearing his fortunes had been overthrown, cast about what was best to be done to preserve his reputation.' And one day he saw from a mole-hill

<sup>&</sup>lt;sup>5</sup> Thorold Rogers, Hist. of Agric. and Prices, i, 110; a sack of wool contained 364 lb.

<sup>6</sup> At the same date ewes were selling at Wymondham at 1s. 0\frac{1}{2}d.; ibid. iii, 170, and at Ramsey for 1s.

Walter of Henley (Roy. Hist. Soc.), 12.

<sup>&</sup>lt;sup>8</sup> Thorold Rogers, Hist. of Agric. and Prices, iv, 87; Parl. R. (Rec. Com.), v, 232. The archers were to be paid by the county 6d. a day for six months.

<sup>&</sup>lt;sup>9</sup> Ibid. iii, 704; Parl. R. (Rec. Com.), v, 27.

<sup>10</sup> Most Approved and Long experienced Waterworks, Lond. 1610.

on the side of a brook a little stream of water issuing down the working of the mole which made the ground 'pleasing green,' and from this he was led on to what he quaintly calls the 'drowning of his lands' to the no small astonishment of his neighbours. By this he improved the value of his estate at New Court from  $\pounds 40$  to  $\pounds 300$  a year, and came to be looked on as a teacher in agricultural matters by those who had first scoffed at him. Vaughan also tells us that when harvest was over he had counted as many as three hundred persons gleaning in one field, and that in the mountains near twenty eggs were sold for a penny, and a good bullock for 26s. 3d.

A little while after this Lord Scudamore set a noble example to the landowners of the county when, after the assassination of his friend the Duke of Buckingham, he retired to Holme Lacy and there devoted his energies to the culture of fruit trees, particularly the Red Streak apple, which he seems to have introduced to public favour. Owing to his exertions and those of 'some other public-spirited gentlemen all Herefordshire is become in a manner but one intire orchard.' About the same time the rye of Clehonger and of some other parts of Archenfield was said to be as good as 'the Muncorne or Miscellane of many other counties, and our wheat upon the ground far richer than I saw any in the fair vale of Esome in Worcestershire and Warwickshire as in my travels I sometimes examined it in the company of other more skilful husbandmen.' 12 The pastures were being 'improved daily,' and there were a great number of 'contrivers of the public good' in the county, among them Lord Scudamore, who, besides helping fruit culture, was a 'great preserver of woods against the day of England's need'; another gentleman had metamorphosed his wilderness to be 'like the orchards of Aloinas.'

Touching on the subject of manures Beale said he had not seen pastures so benefited by compost in Herefordshire as elsewhere, and lime was seldom tried on pastures, though its use in England at this time was widespread; ashes they found excellent if sifted on the ground in February. Graziers and butchers objected to the 'gilt cups' in the otherwise excellent pastures that they made the fat of the beef turn yellow 'as if it were of an old beef.' The richest land in the shire was deemed to be on Frome banks, the pastures very rich, the arable a stiff clay bearing the best wheat, the said clay, however, being very unkind for gardens as it devoured much compost. Yet this rich land was considered slow for orchards, and the arable was much 'inclinable to the mildews,' nor was it any good to turn into pasture, for 'I have seen that in twenty years it gathers not a turf or a sward.' The sourer grass they used for the young cattle, the harder and stronger for labouring oxen, and what was rough and 'little better than sheep pasture' was given to saddle horses to 'mend the breed.' Beale records that a nag fed on high and dry ground was for travel as much beyond one bred in the low grounds 'as a lion exceedeth a cow in activity.'

The wool was still the finest in England, but the sheep were small and did not generally bear a fleece of more than I lb.; they were usually housed at night, winter and summer, which made them nice and liable to two kinds of rot, one only of the liver which 'could be cured by the butcher's knife,' the other 'prevails over the whole body and makes the flesh fit for nothing but dogs.'

For the composition in lieu of purveyance paid by the different counties in 1593 Herefordshire was assessed at 15 fat oxen worth £3 each or £45, 13 one of the lowest assessments in England, Worcestershire being assessed at £209 35. 4d., yet in the 17th century, judging by the national assessments made for various purposes, the county had grown wealthier relatively to the other counties of England. In the famous assessment for ship-money made in 1636 there were seventeen counties with a lower assessment, Herefordshire being assessed at £3,500, or about 150 acres to the £; Worcestershire at the same sum, or 135 acres to the £; and Shropshire at £4,500, or  $183\frac{1}{2}$  acres to the £. In the proposed assessment of November, 1660, in lieu of wardship, Herefordshire was put at £1,800, or 334 acres to the £; there were thirteen counties lower than Herefordshire. The best county, apart from Middlesex, which, as it contained London, is useless for purposes of comparison, was Suffolk, which only required 197 acres to the £, the worst was Cumberland, which required 2,503. However, towards the end of the century the county had almost resumed the position it occupied in the 15th century, only eleven counties having lower amounts in the assessment made for the Land Tax in 1693, when its assessment was £20,409. 14

In the 17th century we borrowed the use of winter roots from Holland, and of artificial grasses, yet so conservative were English farmers that these great improvements were strenuously resisted and did not become general till the latter half of the 18th century. At the end of the 17th

<sup>11</sup> Evelyn, Pomona (ed. 1664), 2.

<sup>12</sup> John Beale, Herefs. Orchards, a Pattern for All England (ed. 1724), 22. Muncorne or mungcorn was a mixture of different seeds sown together so as to come up as one crop. Miscellane was apparently similar.

<sup>13</sup> Eden, State of the Poor (ed. 1797), i, 115. The prices in the assessment are below the market price, that of a fat ox was about £6 13s. 4d.

<sup>&</sup>lt;sup>14</sup> Thorold Rogers, Hist. of Agric. and Prices, v, 104-19. In the Hearth Tax of 1690 its position was about the same, and it possessed 16,744 houses, with a little more than three hearths to every two houses.

century arable land was let at an average of 5s. 6d. per acre, grass land at 8s. 6d.—an enormous

increase since the preceding century.

The close of the 18th century witnessed the great agricultural revolution caused by the necessity of supplying with food the large manufacturing towns which had sprung up; wastes were reclaimed, commons partitioned, farms grew larger, leases longer, and agriculture more scientific; it was the era of Bakewell, Colling, Young, Marshall, and Coke of Holkham. The following are the particulars of a farm of 500 acres of light land in the northern part of the county in 1794:—

	CROPS			Stock
Wheat			40 acres	Sheep 400
Barley			40 ,,	Stall fed cattle 20
Peas .			40 ,,	Milk Cows 17
Turnips			30 ,,	Calves reared . 12
Oats .			30 ,,	Three or four brood mares 15.
Clover			40 ,,	Pigs, &c

In all 220 acres were in tillage and 280 in hay, pasture, orchards and hop-yards, the rotation on the tillage being—(1) wheat; (2) barley or oats, with seeds; (3) clover; (4) fallow and turnips; (5) barley or oats and seeds; (6) clover. On clay-lands the rotation was—(1) peas on clover ley; (2) wheat; (3) a fallow if the land was in bad heart, but if in good, oats or peas, then a fallow. But the rotation varied much in different parts of the county. Turnips at this date, not long introduced into the county, were not hoed, yet a good crop generally came, accompanied, however, by a large crop of weeds, to remedy which a contemporary writer suggests that the landowners should offer prizes for the best crops of hoed turnips.

The indolence of Herefordshire farmers at the end of the 18th century is severely commented on by one writer; he declares that many of the lands were half ploughed, and that weeds, 'those overseers to watch and punish the sluggard,' were rampant. However, the winter feeding of cattle, which must have greatly increased after the introduction of the turnip, was well conducted, their stalls were good and their food consisted of turnips, hay, corn, and 'cakes' made from the refuse of linseed; the corn consisting of barley or beans ground and given dry. Owing to the high price of cake, linseed boiled into a jelly and mixed with flour, bran, or chaff had been used.

The waste lands of the county in 1794 were estimated at 20,000 acres, half of which were in the district adjoining Brecon and Radnor, the largest extent lying at the foot of the Black Mountain, above the Golden Valley, whence in consequence more felons came than from any other part. The old open common-fields still prevailed over a great part of the best lands in the county, and produced about 50 per cent. less than the inclosed lands, besides employing far less labour. In the same year the wages of agricultural labourers in Herefordshire were 6s. a week and a gallon of drink in summer; 5s. a week and three quarts of drink in winter, and in harvest 14d. a day with meat and drink. Yet the average wages in England at this date were 10s. a week. If hired by the year and boarded, men earned from six to nine guineas and women from three to four To plant a hedge and dig the ditch cost from 6d. to 10d. a perch of 7 yds., according to the depth of the ditch, and to lay old hedges 4d. to 6d. a perch. Coppice wood was very profitable, selling at from £12 to £22 per acre of from twelve to fourteen years' growth, a better return than that of most of the land in the county. Not only was there a great demand for hop-poles, but a large quantity of coppice wood was sent to Bristol and other markets for making hoops. price of hop-poles was from 10s. to 15s. a hundred in the wood, their average length being from 15 ft. to 18 ft., though for such hops as the 'Farnham white' and the 'Kentish grape' poles of 22 ft. were used.

At the commencement of the 19th century the greatest estates in Herefordshire belonged to the Governors of Guy's Hospital, the Duke of Norfolk (acquired by marriage with the heiress of the Scudamores of Holme Lacy), the Earl of Oxford, the Earl of Essex, Sir George Cornwall, Mr. R. P. Knight, and Mr. Somerset Davies.<sup>17</sup> These estates were divided, much as they are to-day, into farms averaging from 200 to 400 acres each. Some of the smaller estates were occupied by their owners; those for instance, of Mr. Charles Bodenham of Rotherwas, Mr. T. A. Knight of Elton, Mr. James Phillips of Bringwyn, Mr. John Kedward of Westhide, and Mr. John Apperly of Withington, and they varied from £400 to £1,000 a year in value, were cultivated and managed well, and were used to promote the best interests of practical agriculture. But, unfortunately, there had been in recent years a diminution in the number of farming proprietors—one of the most solid classes of the community. At this date the tenure of gavelkind still occasionally prevailed in the hundred of Archenfield, and that of borough-english in the manor

16 Thorold Rogers, Six Centuries of Work and Wages, chap. xviii.

<sup>15</sup> View of the Agric. of the co. of Heref. by John Clark, for the Bd. of Agric. 1794.

<sup>17</sup> Gen. View of the Agric. of Herefs. by John Duncumb (1805), drawn up for the Bd. of Agric.

of Hampton Bishop. Copyhold estates were few, but leaseholds more common, and speaking generally, about two-thirds of the whole county was freehold, and the remainder under the above tenures. The farm-houses of the county were as a rule inconvenient, and ill adapted to the purposes for which they were designed, and the cottages of very inferior construction. One block of ten had recently been put up in the parish of Holmer, each of which contained one room in front, 12 ft. by 14 ft. and 6 ft. high, with a bed-chamber above of the same size, and there was a shed at the back. They cost £32 10s. each, and are said to have combined 'comfort, convenience and economy,' and were evidently considered at the time far superior to the ordinary run of labourers' dwellings. The consolidation of small holdings into large farms was a marked tendency of the time (as it has been during the whole history of English agriculture), so that landowners were exhorted to arrange their property in a manner which would afford every class the means of improving their condition. Poorer arable land was rented at 10s. an acre, meadows of inferior quality at 18s. to 20s., the best arable lands averaging £1 and the best meadow £2.

Tithe was then collected in kind in very few instances, the average composition being from 3s. 6d. to 4s. in the £; less than in many other places, but lately increased owing to the high price of grain caused by the war. This advance in the price of corn was responsible for the shortening of leases, which hitherto had usually been for twenty-one years, to seven years, which was said to be bad since it checked the tenant's improvements, and limited the amount of capital that he employed. On one estate leases contained a covenant that the landlord once a year should survey the farm buildings, and report to the tenant what was necessary to be done, which was attended

with the best results.

The following account of the culture of an acre of wheat on good fallow land in 1805 does not show much profit or a very good crop:—

$D_{R_{\bullet}}$						Cr.			
			£	5.	d.		ſ.	s.	d.
Two years' rent			2	0	0	20 bushels of wheat	ĩo	0	0
Hauling dung from fold			0	10	0	The straw was set against the			
Four Ploughings			2	0	0	value of the dung; and the tail			
Two harrowings			0	4	0	end wheat is said to have been			
Lime			I	18	0	consumed by the family			
Seed, 2½ bushels	•		I	5	0	•			
Reaping			0	5	0				
Threshing			0	10	0				
Wages			0	5	0				
Tithes and Taxes			0	15	0				
			_						
			£9	I 2	0				
				<u> </u>					

The small wheat crops were attributed to the quick repetition of exhausting crops, and deficiency of tillage which suffered weeds to usurp the soil.

On a farm on good land rented at £200 a year, the following would be the balance sheet at the same date:—

Dr.				Cr.
	£.	J.	d.	$f_{s}$ s. d.
Rent	. 200	0	0	360 bushels of wheat at 10s 180 0 0
Tithes	. 40	0	0	300 bushels of barley at 6s 90 0 0
Wages, servants	• 34	0	0	100 bushels of peas at 6s 30 0 0
" labourers	. 24	0	0	20 cwt. of hops 60 0 0
Extra harvestmen	. 7	0	0	Sale of oxen, cows, and calves . 150 0 0
Tradesmen's Bills	. 50	0	0	Profits from sheep 100 0 0
Taxes and Rates	. 58	0	0	" from pigs, poultry, dairy,
Malt, hops, and cider	. 60	0	0	and sundries 50 0 0
Lime	. 20	0	0	_
Hop-poles	. 10	0	0	
Exs. at Fairs and Markets .	. 8	0	0	
Clothing, groceries, &c., for the	ne			
family	. 45	0	0	
Interest on £1,500 capital at	5			
per cent	· 75	0	0	
Sundries	. 15	0	0	
	£646	0	0	£660 0 0
	20 770		_	£ 000 0 0

According to this the farmer, even with wheat at 10s. a bushel, did little more than pay rent, interest on capital, and get a living; but it is curious that a Herefordshire account should contain

no mention of fruit sold, and that cider should have to be purchased. The drink bill is large; if the beer and cider cost 6d. a gallon, 2,400 gallons were consumed, or more than six and a half a day,

Sundays included.

The large road wagons which had only been introduced in the county about the middle of the 18th century, before which time the ox wain was the only farm carriage of the district, 18 carried  $3\frac{1}{2}$  tons and were drawn by six horses, two abreast; they and the carts had tires 6 in. broad, though both carts and wagons with narrow wheels were used. The plough most in fashion was the 'light Lammas' without a wheel, drawn by three or four horses, according to the nature of the soil, which had superseded a longer and heavier implement. A thrashing machine had lately been erected in the parish of Bridge Sollars which could thrash 80 bushels of wheat in a day, and required the labour of two men, three boys, and four horses.

With very few exceptions wheat was sown broadcast, 'drilling or setting by the hand has been very rarely resorted to here;' 19 the heaviest crops were grown in the vicinity of Hereford and on the clay lands towards Ledbury, which were generally reaped by men from South Wales. They usually came into the county in parties of four or five, with one horse unencumbered with bridle or saddle, between them, which they rode in turns, thus getting over the ground very quickly. Each gang was represented by a foreman who agreed to reap the whole farm at a fixed price per acre.

The hop was prevalent more or less all over the county but chiefly towards Worcestershire,

and had increased much of late years, but 5 cwt. per hop acre was considered a fair crop.

It is interesting to learn that the 'Swedish turnip has been introduced but a few seasons, and has made very considerable progress; its superior ability to resist the attacks of wet and cold are well known, and form very strong recommendations for its culture.' Lucerne, too, had lately been planted in the county by several farmers with much profit.

The decay of the old and most valuable fruits of Herefordshire was the subject of much lamentation, but more efforts had been made to renovate them and introduce new sorts during the

last two decades of the 18th century than in the previous hundred years.<sup>20</sup>

Draining was not much resorted to, and when it was it was done as in other parts of England at that time in a primitive fashion, narrow channels being dug to a proper depth which were filled with small or broken stones about twelve inches deep from the bottom, the stones being covered with inverted turf, and over that the soil removed was replaced. This was considered a great improvement on the wooden drains 'now justly abolished.' The breadth at the top was 8 to 10 in., at the bottom 6 to 8 in., and the drains were  $2\frac{1}{2}$  to 3 ft. deep. The Hon. Edward Foley at Stoke Edith had lately drained some land by means of a plough, drawn by four or more horses, having an iron cylinder pointed at one end which was thus forced through the soil, an experiment which appeared to succeed on clay soil. Hollow bricks had also been used successfully; but though the Agricultural Society in 1797 offered a premium for an improved mode of drainage, no one had come forward to claim it.

Herefordshire breeders at this period had sacrificed the qualities of the cow to those of the ox; 'he does not value his cow according to the price which the grazier will give for it, but in proportion as it possesses that form and character which experience has taught him to be conducive to the excellence of the future ox.' Hence the Herefordshire cow was small, extremely delicate, and very feminine in its character, but there was an extraordinary difference between the cow and the ox bred from her, the latter being often three times the weight of its dam. Nearly half the ploughing in the county was done by oxen, who, when they were used on hard roads, were shod with iron. In breeding them, therefore, their capacity as beasts of draught, as well as their fattening qualities, was considered.<sup>21</sup>

It is hard to realize to-day that Herefordshire cattle for Smithfield market had to be driven all the way a hundred years ago, and for this reason most of the fat stock was disposed of at Hereford Michaelmas Fair, 'when five or six years old,' to the graziers of Buckinghamshire and the home counties to be prepared for the London markets.

The Ryeland was the chief breed of sheep, for the quality of their wool, described as unrivalled in the whole of England.<sup>22</sup> A cross had lately been made between them and 'the new Leicester sorts,' which Bakewell of Dishley had done so much to improve, but it had not improved the wool. The Southdown had also just been introduced, and in one case crossed with the Ryelands, but not

<sup>18</sup> Marshall, Rural Econ. of Glouc. ii, 196. <sup>19</sup> Gen. View of Agric. of Herefs. (1805), 52. <sup>20</sup> Ibid. 79. <sup>21</sup> Marshall, Rural Econ. of Glouc. ii, 196, says, 'In Herefordshire working oxen are the principal object

of breeding.

<sup>27 &#</sup>x27;The Herefordshire wool has been long famed for the silkiness of its pile and the delicacy of its texture, and is particularly sought after by all those manufacturers where the finest broadcloth is made; 'Introductory Sketches towards a Topographical Hist. of the co. of Heref. by Rev. John Lodge, 1793. The wool of Leominster was often called Leominster Ore, and in 1783 sold at 25. a lb. when the ordinary wool of the kingdom fetched 4d.

with much success. The average fleece of the Ryelands was about two pounds, and the shearing was done by women. Instead of folding them in the open, the farmers, as in Beale's time, shut them up at night in a building, a practice which was termed 'cotting,' which was said to fine the wool and keep away the rot, though Beale said it was encouraged by this practice.

Horses had been much altered during the last generation, their height and bulk having been largely increased, but it was doubtful if their strength had improved thereby. With regard to the respective merits of horses and oxen as draught animals, an account in which a team of four oxen is contrasted with three horses in 1803, showed that the former had a balance of £44 in their favour, chiefly owing to the increase in value of the ox and the depreciation of the horse. Oxen were generally worked for four years and then sold to the butcher; they were worked under a yoke, but harness for them was coming into fashion.

Farmers were congratulating themselves on the fact that poultry had increased greatly in price within the previous twenty years. In 1740 a fat goose brought 10d. in Hereford market, in 1760 1s., and in 1804 4s. A couple of fowls sold for 6d. in 1740, for 7d. in 1760, and for 2s. 4d. in

1804. A 'roasting pig' in the same period had increased from 10d. to 4s.

The labourer's wages in 1805, according to Duncumb, were miserably low, averaging, except in harvest time, 6s. a week in winter and 7s. in summer, with 'liquor and two dinners,' not much higher than those paid forty years before; but, owing to the increase in the cost of every necessary of life, the labourer was worse off.<sup>23</sup> It is difficult to understand these figures, for the average wages in England now were 12s. a week. The consequence was that the labourers resorted to parochial relief to supplement their scanty pay, which usually came out of the pocket of the farmer, and might just as well have come as wages. In some instances the price of labour rose and fell according to the price of wheat. The hours of labour were from daylight to dark in winter, and from six in the morning to the same hour in the evening in summer. Of course, in harvest time wages were increased, and hours of work lengthened. If servants were kept in the house by the farmer, the average wages were:—

Wagoner					IO to	I 2	guineas per	annum
Cattleman					8 to	10	"	12
Dairy maid					6 to	7	22	"
Under maid						3	"	"

The county roads, once proverbially bad, said by Marshall in 1796 to be 'such as one might meet with in the marshes of Holland or the mountains of Switzerland,' 24 are described as capable of being made much better, in spite of recent efforts, coarse limestone being the material generally used for making and repairing them. The by-roads were universally bad, often sunk many feet below the surface of the adjoining lands owing to the floods having carried away the soil in the course of ages. The wretched state of the roads, not only in Herefordshire but throughout England, all through the 18th and until the commencement of the 19th century, was largely due to the law which compelled each parish to maintain its own roads by statute labour, nor did the establishment of turnpike trusts work much improvement until Telford and Macadam brought scientific principles to bear on road-making. Marshall attributes the badness of the Herefordshire roads partly to the fact that the county had been inclosed from 'the forest state,' with the result that crooked fences and winding narrow lanes were the rule.

During the Revolutionary and Napoleonic wars, which lasted from 1793 to 1815, the prices of agricultural produce increased enormously. Wheat sold as high as a guinea a bushel, with the result that a quantity of land of the poorest kind was converted into corn land, rents were raised, and farming was in an unhealthy and inflated condition. When peace came, after the battle of Waterloo, the reaction was violent and immediate, and twenty years of almost unprecedented distress set in. Between January 1819 and July 1822, wheat, which had already fallen enormously in price, dropped from 745. to 435. per quarter, beef from 45. 6d. per stone to 25. 5d., and mutton from 55. 8d. to 25. 2d. During this period the yeomanry, one of the sturdiest and best of English classes, practically disappeared; many had sold their lands at high prices during the war, many had overmortgaged and were ruined with the advent of low prices.

The change from prosperity during the war to distress when it was ended was remarkably sudden. In 1816 rents in Herefordshire had already fallen from 10 to 33 per cent., many farms were unoccupied, and labourers were out of work. Mr. T. A. Knight wrote that the tenants upon almost every farm in his part of the county had stated their inability to pay their rents, and probably not more than one-half of last year's rents had been paid, even by farmers whose rents had

<sup>&</sup>lt;sup>28</sup> Wheat in 1691 in Herefordshire was 3s. a bushel, and the same price in 1760; but in 1804, 10s. 6d. Butcher's meat was  $1\frac{1}{2}d$ . per lb. in 1760, 7d. in 1804; fresh butter  $4\frac{1}{2}d$ . per lb. in 1760, 1s. 3d. in 1804. Coals, 14s. in 1760, £1 4s. in 1804. John Duncumb, Gen. View, 140.

<sup>24</sup> Marshall, Rural Econ. of Glow. ii, 189.

been raised little or not at all during the previous twenty years; for there was no market for corn or cattle. The county tradesmen, having comparatively no custom, purchased little from farmer or butcher. Dress and poverty of living indicated the straits to which farmers were reduced. 'The state of the poor and labouring classes,' he said, 'is worse than I ever remember it, and every week becoming more so, as the property of the farmer decreases.' The great obstacle to all agricultural improvements was stated to be the tithes; as they were then enforced it was impossible for the farmer to cultivate under them. Eminent land surveyors of the time stated that they were not expected to value the tithes according to the sum the owner could get by collecting them, but in proportion to the injury the farmer could be made to suffer by being compelled to set out every trifling article of tithe. This made the tithe-owners, and especially the clergy, very unpopular; the churches were deserted, the Sacrament ceased to be taken 'by far the greater part of our peasantry, who became annually more profligate and idle, and better calculated to cut the throats of the higher orders than to till the soil.'

The tax on malt also pressed injuriously on the cornfields, and its repeal was anxiously demanded. The vexatious and impolitic tax on horses engaged in agriculture had been repealed, but did not afford much relief. The distress was also inevitably felt with great severity by the landowner; several in the county had become bankrupt, and one lady in 1816, whose half-year's rent amounted to  $f_{1,250}$ , had received  $f_{1,85}$ .

The taxes levied during the war were most burdensome, and must have considerably discounted the high prices; and it was some time after peace was declared before they could be substantially reduced. The following is a statement of the taxes and tithes paid on a Herefordshire farm of about three hundred acres in 1815:—

n											£	5.	d.
Property tax pa	id by	landlord an	nd ten	ant	•		•	•	•	•	95	16	10
Great tithes	"	"	"		•			•			64	17	6
Small "	**	"	"			•					29	15	0
Land tax .	•	•	•	•	•						14	0	0
Tax on window				•			•		•		24	I	6
Poor rates, paid	by la	ndlord .									10	0	0
" "		enant .						•			40	0	0
Cart-horse duty	paid	by landlord	l on t	hree ho	rses				•		2	ΙI	0
	,,			"							7	2	0
Duty on two sa	ddle h	orses, paid	by la	ndlord							9	0	0
											6	6	0
,, one sac	ldle h	orse, paid b	y ten	ant							×	13	6
Landlord's malt	duty	on 60 bush	iels of	barley	•		. •		•		2 I	o	0
Tenant's duty for				of barl	ey in	i <b>to</b> ma	ılt				42	0	0
N.B.—No											•		
New rate for bu	ilding	shire hall,	paid	<b>by l</b> and	llord						9	0	0
	"	,,	"	tena	nt						3	0	0
Surcharge 26	•		•	•	•				•		2	8	0
											<i>-</i>		
										د	£383	II	4
													-

It is not surprising to hear 'that the principal distresses that have occurred have been seizures under the Crown for taxes.' But it was the tithe system that created most discontent, and on one farm of 120 acres the tithe and poor rates alone exceeded what had till recently been paid in rent.

The poor rates for the parish of Holmer, from 1812 to 1816, were:

To Easter,	1812						£ 600	s. 16	<i>d.</i> I O
"	1813						750	0	0
"	1814						700	0	0
,,	1815						620	0	0
,,	1816					_	£70	0	_

The parish of Kentchurch presented a striking example of the heavy burden of taxation in 1816, for it paid in direct taxes a greater sum than the lands of the whole parish could be let for. It is worthy of notice that during this time of severe distress those cottagers who had a piece of land to keep a cow or ox on never applied for parish relief.

<sup>96</sup> Agric. State of the Kingdom, being replies to a circular letter sent by the Board of Agriculture (1816), 105.

The wages of the agricultural labourer, which had averaged 7s. 6d. a week in the period 1769-89, rose in 1811-14 to 12s. 9d. per week, but, owing to the enormous rise of the price of food, clothing, &c., he was no better off. And after 1814 wages began to fall rapidly. Thorold Rogers, Work and Wages, chap. xviii.

In November 1821 William Cobbett was in the neighbourhood of Pencoyd in the southern part of the county, where everywhere was good arable land, pastures, orchards, coppices, and timber trees. One farmer he visited had four acres of swedes on four feet ridges drilled from the 11th to the 14th of May. They had been very much injured by the fly, but the gaps had been filled up by transplanting, and the ground twice ploughed between the ridges. The crop had turned out in his opinion very fine, not less than seventeen tons per acre. On another farm near, twenty tons had been grown to the acre in spite of the fly.

At the end of the first quarter of the 19th century Herefordshire was still fortunate in possessing estates of from £400 to £1,000 a year, on which their owners resided, and cultivated their land, so as to be an example to their neighbours. The large estates were still generally divided into farms of from two hundred to four hundred acres; and the tenures of gavelkind and borough-english existed in a few places, but were usually nullified by will. Small farms were generally decreasing in number, 'there were few opportunities by which an industrious couple could devote £50 to £100 acquired by personal labour, to stock a few acres and bring up their family'; hence matrimony was on the decline and licentiousness on the increase.

Many of the old farm-houses were of wood, ill designed and placed, though on the larger estates better ones were being erected. Cottages too, were very poor and badly built.

Leases were generally still for twenty-one years, divided usually into three periods of seven

years, and determinable at the end of each by landlord or tenant.

As regards implements, there was practically no change since the beginning of the century, the light Lammas plough being still most used, often drawn as before by four oxen, sometimes in a line, sometimes in the old yoke. Improved implements were confined to amateurs; there were none in general use.

There was more wheat grown than any other kind of grain, generally sown on a fallow, and

change of seed was often procured from the chalk hills of Oxfordshire.

In the management of sound meadows and pastures a new method had been tried with great success; the grass was mown as soon as it was in blossom before the formation of seed, the aftermath was not grazed until the end of October or the beginning of November, and thereby the ground remained covered during the winter with a portion of dead herbage, through which the young grass sprang with the greatest vigour early in the next spring.

Draining was still much neglected and 'practised chiefly by proprietors,' but a follower of Vaughan in the practice of irrigation had been found in the person of Mr. T. A. Knight, 'the most distinguished cultivator in the county,' who by making a weir on the Teme with proper

courses for the water had irrigated 200 acres of land.

In the middle of the 19th century the introduction of artificial manures had done much to lessen the evils of over and too-frequent liming which had hitherto been one of the great faults of Herefordshire farming. The use of guano, bones, and superphosphate was becoming common, and nitrate of soda was being introduced. Mr. Knight had wisely remarked in connexion with the abuse of lime, that 'the landlord who binds his tenant to a large consumption of lime without stipulating for the use of other manures, resembles the man who lets his horse to hire under a positive injunction that the rider shall use whip and spurs, but takes no precaution to insure the equally essential requisite of an abundant supply of corn and hay.' Unfortunately there were many unscrupulous vendors of artificial manures who palmed off on the farmers spurious articles which retarded the sale of the genuine. Wherever the right sort of artificial manure had been produced its use had been attended with marked success, and a writer of the day prophesied that there was 'not a county in England where their employment can be made so profitable to the occupiers of the soil over so wide an area in proportion to its extent.' <sup>27</sup>

Herefordshire has always been famous for its timber trees, especially its oaks, which have been called the 'weeds of Herefordshire,' as the elm has been called the 'Warwickshire weed.' Beale says 'our elm is of speediest growth and found in rows on our highways and at every cottager's door, except they be compelled to give place to fruit trees, and all our hills have sometimes born oaks, and I conceive most are very apt for it. But of late the iron mills have devoured our glory and defloured our groves.' In 1805 a man standing on an eminence near Mordiford and looking eastward would see woodland stretching as far as the eye could reach with a white cottage and a cultivated acre occasionally intervening. Deep and winding roads intersected the whole with a narrow track, and a bleak common completed the cheerless scene. Cobbett, while staying at Weston in 1821, admired the rich land, the pastures 'the finest I ever saw, the trees of all kinds surpassing upon an average any that I have before seen in England,' and journeying from Ross to Hereford he noted that the trees were very fine all the way. But it was some time before the county recovered from the large clearance of timber required for the navy in the great war with France.

28 Herefs. Orchards (ed. 1724), 21.

<sup>&</sup>lt;sup>27</sup> Journ. Roy. Agric. Soc. Engl. (1st Ser.), xiv, 441.

By the middle of the 19th century, however, it again boasted of innumerable clumps of trees and luxuriant hedgerow timber with a larger number of small park-like inclosures than could be found in any other part of England of equal extent. In 1878 34,885 acres were occupied by woods, coppices, and plantations; in 1905 43,078 acres, 27,122 being coppice, 1,153 plantations, and

14,803 'other woods.' 30

The farm-houses about 1850 were probably not so deficient in out-buildings as in many other parts of England, where a reliance on Protection, according to the agricultural writers of the day, had caused landlords to neglect them. This was partly due to the general size of farms being above the average, to the system of cotting sheep, and to the shelter considered necessary for the manufacture of cider. Still the deficiency of shelter had occasionally to be remedied by employing the orchard as a fold-yard, to the great waste of valuable manure, and what was even then called the 'modern system' of growing heavy root and green crops, with the consequent power conferred on the farmer of maintaining a larger quantity of stock during the winter, had caused the present buildings to fall short of requirements.

The drainage of the agricultural land in the county was still in a very unsatisfactory state, though in England there was a general movement in favour of improved methods. The great extent of the orchards and timber was said to present impediments, and in some of the lands, especially the alluvial flats, there was no outfall. But apart from these obstacles much of the heavy

soil was not drained, and on the loose soil drainage was scarcely thought of.31

Yet contrasted with the state of farming revealed by Duncumb's report in 1805 the agriculture of the county had improved in all respects, except in the manufacture of cider and perry, in 1853. The farmer no longer tilled his land for a crop of twelve to fourteen bushels per acre of peas or beans on favourable soil, nor was he satisfied with the wretched crop of 20 bushels of wheat per acre on good land, and the use of green crops in the fold-yard had largely increased. There had also been a complete change in the species of sheep bred by Herefordshire flock owners, the true-bred Ryelands were by now only to be found in the vicinity of Ross. They had been crossed with the Leicesters, from which had descended a large number of the mongrel animals 'now found in the county.' More recently, however, the Southdowns had come into favour. Summing up, the writer before quoted declares that all that was required by the county to make it equal to any district in England was improved drainage and the suppression of agricultural fraud in the sale of artificial manures.

Writing in 1868 Mr. C. Cadle, whose statements were verified by Mr. Duckham of Baysham Court, stated that most of the holdings were from Candlemas though there were a few from Christmas and Ladyday. On Candlemas and Ladyday takings the outgoing tenant was as now entitled to the offgoing crop of wheat on one-third of the arable land, and was paid for the acts of husbandry on the young clover seeds. The outgoing tenant kept the house (except two rooms for servants and the stable) and the boozy 33 pasture until I May, and also had the use of the barn and part of the stack-yard until the same date to thrash his corn. The incoming tenant, except as mentioned, had no acts of husbandry to pay for, all the manure belonged to him, and hay and straw could not be sold off. Tenants did the repairs, materials in the rough being found by the landlord, who first put the holding in order.34 This may be compared to a lease of 1906 whereby the incoming tenant 'agrees to pay on entering a consuming price for all clover, hay, and straw of last year's growth and for all acts of husbandry, crops, and seeds, and unexhausted improvements in like manner as he shall be paid at the termination of the tenancy. To do the repairs on being provided by the landlord with materials which the tenant is to haul. In the last year of the tenancy to have, exclusive of the hop-yard, only one-third of the arable land in wheat, one-third in a clean and proper state for the incoming tenant to sow with spring corn, and one-third in clover and grass seeds. To consume upon the farm all hay, straw, clover, fodder and roots, grown on the farm. To allow the next incoming tenant, from and after the 1 October preceding the termination of the tenancy, to enter upon such lands as shall be in course for spring corn or turnips and do all necessary acts of husbandry thereto. To leave all unused manure upon the premises without any allowance for the same.'

The use of the boosey pasture, the house, barn, and part of stack-yard until I May is still customary in Candlemas and Ladyday tenancies; but the Act of 1906 has so modified the cultivation clauses in leases that, except in the last year of the tenancy, they will be of little use henceforth.

31 Journ. Roy. Agric. Soc. Engl. (Ser. 1), xiv, 454.

<sup>30</sup> The total acreage only is given in the Agricultural Returns of 1878.

<sup>32</sup> It should be remembered, however, that in 1805 wheat was 10s. a bushel and soon mounted higher, while from 1850 to 1853 it was little more than 5s. a bushel.

<sup>33</sup> Boozy or boosey means primarily a division in a cowshed, or manger, so it came to mean the meadow lying near the cowshed.

34 Journ. Roy. Agric. Soc. Engl. (Ser. 2), iv, 153.

In 1878 a typical Herefordshire farm of 200 acres would probably have 150 acres in permanent grass of which ten to twenty would be orchard. The stock consists of twelve to fourteen cows, of which in the spring two or three old ones would be fattened for the butcher. There are twelve or fourteen calves running with their dams and the same number of yearlings, of which the greater portion may be for sale in the autumn, or they may be kept on for another year before they are sold at £20 apiece. The remainder of the yearlings would be put to the bull in the next summer to replace the old cows sold off. About one-fifth of the arable land would be in turnips and mangolds for winter food for the stock. These roots, with the straw of the corn crops and the hay from about 60 acres of old grass, would keep the cattle and the small flock of sheep until they were turned out to grass in May.

The rainfall of the years 1879 and 1880 over the midland, western, and southern counties of England will long be remembered; over most of this area it was one-fourth above the average, and sometimes 3 in. of rain fell in the twenty-four hours, producing most disastrous floods. The amount of sunshine was naturally diminished, and these adverse conditions had a very prejudicial effect on the health of live-stock. The saturated land produced rougher and coarser herbage, the finer grasses languished and perished, fodder and grain were imperfectly matured. Flukes multiplied and produced liver-rot in abundance among the live-stock, especially on the heavy clay soils, as they had not done since the season of 1829 and 1830, and even extended to comparatively dry uplands where they had not been known for fifty years. This devastation was not confined to sheep, cattle were attacked, hares and rabbits died in numbers, and horses

and pigs were not exempt.

From the reports of eighty Herefordshire stock farmers collected in 1880 it appears that the disease of liver-rot was widespread among sheep and cattle, and had reached farms where it had not appeared within man's memory, valuable pedigree flocks and herds also suffering from it. Sheep, which if sound would have fetched 50s. to 63s. a head, were sold at from 7s. 6d. to 27s. and should not have been sold at all. On Bury House Farm, near Wigmore, the whole of the live-stock were lost or sold as diseased, as was the case on Field Place Farm on the Garnstone estate, and many other farmers reported losses nearly as bad as these. On the other hand, Mr. Helme attributed the saving of his flock to a very liberal use of salt with a very little nitre, and Mr. Arkwright in a flock of 470 Southdowns and Leicesters had no case of liver-rot in 1879 and only sixteen cases in 1880, most likely because the sheep were liberally fed on dry food and had plenty of salt. The disease was apparently generally contracted in May or June, its symptoms became apparent in October and November, and the highest death rate was in the following March and April.

In 1884 Herefordshire with Shropshire and Staffordshire comprised the area for the farm prize competition of the Royal Agricultural Society's Show. One of the farms entered near Tenbury of 475 acres carried 72 head of cattle, valued at £1,332; 19 horses at £510, and 277 sheep at £842 10s., a total of £2,684 10s. Fortunately a list of stock on the farm at the sale in 1822 had been preserved, which showed that at that date there were 45 head of cattle valued at £140 1s. 3d., 35 13 horses at £132 2s., and 104 sheep at £156, a total of £428 3s. 3d. It will be thus seen that the average price of the cattle on the farm in 1822 was a little over £3 a head, that the capacity of the farm for keeping stock had doubled, and their value had increased sixfold. On another farm near Hereford, in 1884, consisting of 533 acres, of which 283 were arable and 250 pasture, there were in January 107 head of cattle, 553 sheep, and 39 horses. Forty bushels of barley to the acre was an average crop, and Hunter's red chaff wheat on clover ley from 2½ bushels of seed produced over 40 bushels per acre, and oats 50 to 60 bushels. The whole of the grass-land had been drained lately, the landlord finding the pipes, and the tenant doing the labour. The regular staff of labourers was twenty men and boys, and in addition some work was done by contract. Men's wages were from 12s. to 14s. a week and cider; in harvest time they received 25s. extra and bread and cheese at five o'clock; they were also allowed 200 yards of ground for growing potatoes. Carters had rather higher wages. The annual cost of labour was about £800, or £1 9s. 9d. an acre; and the capital employed very large, amounting to from £12 to £ 16 an acre, the results of which were described as satisfactory.

In 1866 the Board of Agriculture for the first time collected returns of the crops and live-

In 1866 the Board of Agriculture for the first time collected returns of the crops and livestock in all the counties of Great Britain, but as in that year all occupiers of under five acres of land were excluded, and the live-stock census was taken on 5 March, the returns of 1867 are better for purposes of comparison with subsequent years, as they included all occupiers, and the

live-stock census was taken 25 June.

35 This is a very low price; the cattle were Herefords, and comprised 9 cows and calves, 5 three-year-old heifers in calf, 8 two-year-olds, 3 barren cows, 4 three-year-old bullocks, 4 two-year-old bullocks, 6 year-ling heifers, and 6 yearling bullocks. The highest price for a cow and calf was £11 15s. Three-year-old bullocks fetched £8 10s. each; two-year-old heifers from £2 6s. to £18; yearlings, 57s. to £4.

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The total area of Herefordshire was returned as 534,823 acres, divided thus:-

Acreage not	Acreage under Cultivation	Arable	Pasture 86
135,066	399,757	194,606	205,151

The number of horses was not stated, but the other live-stock consisted of-

Cattle	Sheep	Pigs
69,145	348,141	36,466

In 1878 the total area of the county was returned as 532,898 acres, of which 439,944 were under crops, bare fallow, and grass, a very notable increase since 1867, but it should be remembered that at first many farmers were reluctant to give returns.

Corn crops comprised 104,872 acres;

Wheat	Barley	Oats	Rye	Beans	Peas
55,891	22,079	12,842	173	8,712	5,175
Green crops, 33,4	.22 acres;				
1,00,.	•				

Potatoes	Turnips and Swedes	Mangolds	Carrots	Cabbage Kohl-Rabi and Rape	Vetches and other Green Crops
2,216	24,318	1,459	61	341	5,027

Then come 7 acres of flax, 5,947 of hops, 10,732 of bare fallow, and 46,121 acres of clover, sainfoin and grasses under rotation. In all 201,101 acres of arable land, and 238,843 acres of permanent pasture.

The acreage under orchards was 24,979, under woods, coppices and plantations, 34,885. The number of live-stock was then—

Horses	Cattle	Sheep	Pigs
20,945	73,773	339,049	30,857

In 1880, owing to the disastrous rains of that and the preceding year, the number of sheep had decreased to 260,099, a loss of nearly 80,000, a very considerable proportion of the total decrease of 1,600,000 for England.

In 1905 the area of the county in acres was-

		Mountain and
Land	Water	Heath-land
		used for grazing
536,071	2,853	11,091

and of this the total acreage under crops and grass, not including mountain and heath-land, was 449,793, made up as under 37:—

CORN CROPS											
Wheat	Barley	Oats	Rye	Beans	Peas						
22,043	16,457	25,539	177	3,251	1,847						

in all 69,314 acres.

The decreased acreage in wheat, barley, beans, and peas, and the increased quantity in oats is noteworthy.

#### GREEN CROPS

Potatoes	Turnips and Swedes	Mangolds	Cabbage Kohl-Rabi and Rape	Vetches and Tares	Other Crops
1,663	16,216	3,041	433	1,646	596

in all 23,595 acres. The decrease in turnips and swedes since 1878 is remarkable, as is that under vetches, tares, and other green crops.

Hops were grown on 6,851 acres, small fruit on 910, and there were 2,182 acres of bare fallow. Clover, sainfoin and grasses under rotation amounted to 35,012. The total acreage of arable land

37 Rep. on Agricultural Returns for 1905, Board of Agriculture.

<sup>&</sup>lt;sup>36</sup> Arable included all corn and green crops, hops, clover, artificial grasses under rotation, and bare fallow. The pasture did not include heath or mountain land.

was thus 137,864, and that of permanent pasture 311,929, an increase of 73,086 acres since 1878. In the same year the live-stock was classified as under:—

Horses	Cattle	Sheep	Pigs
24,788	99,339	333,700	24,565

The increase in horses and cattle is largely due to the necessity of stocking the increased area of permanent pasture; sheep are about as numerous as before the rains of 1879 and 1880. The acreage of land occupied by tenants was 406,845, that occupied by owners 42,948.

The total number of the various holdings was 6,470, made up thus:-

Above 1 and not exceeding	Above 5 and not exceeding	Above 50 and not exceeding	Above 200 acres
5 acres	50 acres	300 acres	300 acres
1,395	2,724	2,098	253

the average size of the holdings being  $69\frac{1}{2}$  acres, and the number of holdings of 50 acres and under had decreased by 1,362 since 1880.

The number of cattle per 1,000 acres was 184, which must be compared with 154 for England generally; the number of sheep was 619 compared with 452 for England.

In 1905 Herefordshire, from her 22,043 acres of wheat, produced 709,225 bushels, or an average of 32.17 bushels per acre, the average for England being 32.66 bushels per acre.

In the ten years from 1895 to 1904 the average crops of the county per acre as compared with those of England may be tabulated as follows:—

	Wheat	Barley	Oats	Beans	Peas
Hereford, bushels	29.05	30.34	35.47	26.51	26.00
England, "	30.23	32.28	40.41	27.39	26.36
		Potatoes		nips and wed <b>es</b>	<b>M</b> angold <b>s</b>
Hereford, tons .		• 5.33	I	3.18	14.72
England,		. 5.84	1	1.01	18.30

In the same ten-year period Herefordshire produced an average of 24'11 cwt. per acre of clover, sainfoin, and grasses under rotation, against 28'79 cwt. for all England, and only 16'58 cwt. per acre of hay from permanent pasture, against 23'61 cwt. for England, the lowest average of any county but Huntingdon, and in striking contrast to the 37'41 cwt. of Westmorland.<sup>38</sup>

The hop crop of the county amounted to 88,802 cwt. in 1905 grown on 6,851 acres, an average yield per acre of 12.96 cwt., but this was very exceptional, the average yield per acre of the ten previous years being 6.83 cwt., and in 1904 the yield per acre was only 2.08 cwt.<sup>39</sup>

Until 1797 there was no Agricultural Society in Herefordshire, 40 but in that year a society was established comprising most of the principal landowners and farmers, and numbering a few years after 120 members. Since then many local societies have arisen, the Leominster Agricultural Association, the Herefordshire Horse Show Society, Herefordshire Fruit, Grain, and Chrysanthemum Society, the Wormside Ploughing Society, Bosbury Horse Show, Pembridge and District Ploughing Society, Kington Horse Show, Kingsland Foal Show, Bromyard Colt Show, Glasbury and Wyeside Agricultural Society, Eardisley Ploughing Society, and many others. The Royal Show has never been held in the county, but the Bath and West of England visited Hereford in 1865 and 1875.

Herefordshire has shared with the rest of England the agricultural depression of the last generation. From the evidence taken before the Royal Commission on Agriculture in 1893, it appears that rents in the county had been reduced from 20 per cent. to 30 per cent. since 1879. In replies to questions sent to various parts of the county in 1907 the reductions are said to be about the same generally, though in some districts they have been smaller, and in others larger than this. For instance, round Holme Lacy rents have not been reduced more than 10 per cent.; near Bromyard some have fallen 40 per cent. If anything there is now an upward tendency, but it is very slight. The average farm to-day contains 200 to 300 acres, though in some parts, as near Brampton Bryan, they run to 400, and there are large hop and fruit farms of 500 acres, while in the Bromyard district the average is 120 acres. The greater part by far of the grass-land is used for grazing Herefordshire cattle; where there is any dairying Shorthorns are the favourites and occasionally Jerseys and crossbreds. There are probably more farms rented at from 20s. to 25s. an acre than at any other figure, though good grazing-land, hop-land, orchards, and accommodation-land naturally command a

<sup>38</sup> The highest average in Great Britain was 46.14 cwt., grown in Renfrewshire.

The average yield per acre in England between 1895-1904 was 8.64 cwt.; in Kent, 9.15 cwt.
The Board of Agriculture was established in 1793; and many shows were started about this time, the Bath and West of England in 1777, Smithfield Club in 1793.

much higher price, and some of the poor heavy land does not fetch more than 15s. or 16s. Questions as to the present condition of the farm buildings have elicted such replies as 'fair, 'good,' 'very fair,' 'improved'; a state of things creditable to the landlords who have been publicspirited enough to keep up their estates in spite of fallen rents and increased taxation. Generally speaking farms are not much run down owing to the depression in agriculture, though there are deplorable exceptions, and some of the so-called pasture is merely 'tumbled down' tillage. Nearly all the farms in the county are held on yearly agreements from Candlemas or 2 February, though some are taken from Ladyday and Christmas, and there are a few leases of seven and fourteen years. When Mr. Rider Haggard was in Herefordshire he was told on almost every side that labour was scarce and bad, 'all the young men who were worth anything went away, only the dregs remaining on the land.'41 To-day the supply is generally sufficient, but the quality has undoubtedly deteriorated, yet the labourer is better paid, better fed, better clothed, and better housed than he has ever been before. He alone has improved his lot since bad times set in. His cottage in Herefordshire is often a good one, and let at £4 or £5 a year, his wages are, if he is a wagoner, shepherd, or stockman, from 14s. to 18s. a week with a cottage, and sometimes a potato ground; if he is an ordinary labourer 13s. to 15s. a week with a cottage, usually without, if he receives the higher figure. Then there are extras, a shepherd getting 3d. a head for lambs, and all who work in the harvest get f, I to 30s. harvest-money, and plenty of free cider. Women are not employed in farm work as much as formerly, yet their labour is frequently used, Is. a day being a common wage; the itinerant labourer has almost disappeared. Allotments, except near towns, are rare, the labourer generally has a garden to his cottage and prefers it.

The favourite sheep to-day in the county are the Shropshire, sometimes crossed with Radnors

and sometimes with Oxfords.

Beyond breeding horses for their own work, and perhaps a hackney or a hunter, farmers do little in the way of horse-breeding, and as the motor industry has begun to make itself felt, they will doubtless do less in the future. At present, however, the motor-car has not affected the price of

good horses.

With regard to the vexed question of small holdings there is no doubt that the tendency in Herefordshire, as in other parts of England, has been in the past for them to be amalgamated in the large farms. Yet there appears to be no other method of keeping the rural population on the land. When Mr. Rider Haggard visited the county about 1901 he was told on every side that the county was being depopulated. The population of Lyonshall, for instance, had decreased by 105 in ten years, and there was a growing tendency to despise the business of working on the soil. Yet the small holding like the large will only succeed with the right man in the right place, as Mr. Duckham remarked in the early eighties; there is no magic in a small number of acres. As a successful example of one, thirty acres occupied near Lyonshall may be taken. It was rented at 30s. an acre, and half was in tillage, which was however being laid down to grass. The tenant had begun as a farm labourer, and by hard work had saved enough to start on his own behalf, and he worked the little farm with the help of a boy only. He kept eight or ten head of cattle and 20 ewes, feeding out their lambs. He and his neighbour, who was another small holder, worked their farms more or less together, which they found cheaper than keeping two horses each. The result was that he was able to pay his rent and make his way, and others near him were doing the same.

The Herefordshire County Council has not been behindhand in its efforts to help agricultural education. Lately short courses of instruction have been provided in agriculture, dairy work, and poultry management, and practical classes and demonstrations have considerably increased, the educational results of which are more valuable than popular lectures. It is satisfactory to learn that there has been an increased growth of interest in the work of the department in consequence, one course for young farmers held in February 1906 was attended by 32 young men who received a continuous course of training for periods of five and ten weeks. Another excellent feature in the programme has been the holding of gardening classes at various elementary schools, in which the children have taken a keen interest. Among the practical instructions given have been some on cider-making, dealing with the selection and blending of the fruit, and with its pressing and crushing and the subsequent management of the juice. Prizes have also been wisely given for proficiency in farm work and for the

best cultivated cottage gardens.

We will now give a brief account of the three products for which the county is famous: Cattle, Hops, and Fruit.

41 Rural Engl. i, 304.

#### CATTLE

Herefordshire cattle have long been famous as one or the finest breeds in the world. Marshall, one of the greatest agriculturists of his day, writing in 1788, does not hesitate to say 'the Herefordshire breed of cattle taking it all in all may without risque be deemed the first breed of cattle in the Their origin has been accounted for in various ways. Some say they were originally brown or reddish-brown from Normandy or Devon, others that they came from Wales, while it is recorded that Lord Scudamore in the latter half of the 17th century introduced red cows with white faces from Flanders. However, they do not emerge from obscurity until about the middle of the 18th century, when Messrs. Tomkins, Weyman, Yeomans, Hewer, and Tully, devoted their energies to establishing a county breed. There were four varieties of Herefords which have now practically merged into the red with white face, mane, and throat: the mottle face, with red marks intermixed with the parts usually white; the dark greys; light greys, and the red with the white face. The rivalry between the breeders of the white and the mottle faces almost caused the failure of the herd-book commenced in 1845 by Mr. Eyton. The mottle-faced party seems to have been then the most influential, but the dark and light grey varieties also had strong adherents. In 1857 Mr. Duckham took over the management of the herd-book, and to his exertions the breed owes a deep debt of gratitude. One of the greatest supporters of the Herefordshire breed was Mr. Westcar of Creslow who, starting in 1779, attended Hereford October Fair for forty years, and when the Smithfield Show commenced in 1799 won innumerable first prizes there with Herefordshire cattle. Between 1799 and 1811 twenty of his Herefordshire prize oxen averaged f 106 6s. each, and at the sale of Mr. Ben Tomkins' herd after his death in 1819 twenty-eight breeding animals averaged £152, one cow fetching £262 15s. Herefords are famous for their feeding qualities at grass, and good stores are scarce, the best being fattened on their native pastures. They are not only almost the only breed in their own county, but few English counties south of Shropshire are without them; they have done well in Ireland, and in Canada, the United States, South America, and Australia have attained great success. They are not so well qualified for crossing as Shorthorns, but have blended well with that breed, and produced good crosses with Ayrshires and Jerseys, but not with Devons. It has been said that they are not a favourite sort with London butchers, as they require time to ripen which does not suit a hurrying age. Hence they probably flourished best under the old school of graziers, who sometimes kept them to six or seven years old, when money was plentiful. At all events they are a very fine breed for beef purposes, their meat being particularly tender, juicy, and fine-grained. They are seldom kept for dairy purposes, consequently the calf is nearly always allowed to run with the dam, which accounts for the fact that one seldom sees pure-bred Herefords that are not well-grown. In 1788 Marshall saw about 1,000 head of cattle at the Hereford October Fair 'chiefly of this breed with a few Welsh.' Oxen were there selling at from £12 to £17 each, and he describes it as 'the finest show I have seen anywhere.' But the Exhibition would have been much finer if there had been a proper show-yard, as the beasts were all huddled together in the streets, the townspeople, to save their windows, running a rope along the foot pavement. Since then as many as 8,000 bullocks have been mustered at the same fair, but of late the numbers have declined from this.

#### HOPS

The cultivation of the hop is one of the most important agricultural industries in Herefordshire, and, although in 1905 the county grew 6,851 acres against Worcester's 3,807, the Herefordshire output is classified under the head of Worcestershire.

It has been often erroneously stated that hops came into England with the Reformation, but they were certainly known here long before that time. They flourished in the royal gardens of Edward I,<sup>42</sup> and a distinguished authority <sup>43</sup> says the hop may with probability be reckoned a native of Britain, but it was first used as a salad or vegetable for the table, and the same writer says the young sprouts boiled 'have the flavour of asparagus and are more early.' When noticed in early writings it is mentioned as a garden plant.

Hasted the Kentish historian 44 states that a petition was presented to Parliament in 1428 against the hop plant which was called 'a wicked weed.' Even at that date the growers had to face

43 Denton, Engl. in Fifteenth Century, 56.

<sup>&</sup>lt;sup>43</sup> Sir Jas. E. Smith, *Engl. Flora*, iv, 241. Gerard in his 'Herbal' written in 1630 says, 'the buds or first sprouts which come forth in the spring are used to be eaten in Salads yet are they, as Pliny saith, more toothsome than nourishing, for they yield but very small nourishment notwithstanding they be good for the intrals.'

<sup>44</sup> Hist. of Kent (ed. 1778), i, 123.

foreign competition, for during the 15th century hops were largely imported into England as the

customs accounts clearly prove.

In 1482 1 cwt. was sold for 8s., and 1 cwt. 21 lb. for 19s. 6d., a curious instance of their early fluctuation in price. In 1510 2 cwt. were sold at 13s. 6d., next year they were sold at 3d. a lb., and in 1514 8s. 4d. per cwt. 45 They were sometimes sold by the stone, six stone being sold at Hunstantor in 1527 at 2s. 4d. per stone; in the same year half a hundredweight was sold for 18s. 8d.; the fluctuation in the price was very great; at Cambridge in 1587 they were 26s. 8d. a cwt., in 1586 63s. 4d., in 1607 170s. The following are some prices at Hereford:—

1692-3					60s.	1697-8			•				•	2 I Os.
1693-4					40s.	1698 <b>–9</b>		•	•		•	•	•	2405.
1694-5		•		•	I I Os.	1700-1	•	•	•	•	٠	•	•	100s.

It was to Holland in the 16th century that we owe the technical cultivation of the plant, a we do so many improvements in agriculture, and the use of hops in beer was also, most probably, ar invention of the Dutch.<sup>46</sup>

One Reynold Scott, writing in 1574, says, 'One man may well keep two thousand hils, upor every hil well ordered you shall have 3 lbs. of hoppes at the least, one hundred pounds of these hoppes are commonly worth 26s. 8d.<sup>47</sup> one acre of ground and the third part of one man's labour with small cost beside, shall yealde unto him that ordereth the same well, fortie marks yearly and that for ever,' a sanguine view that subsequent experience has not justified. John Evelyn did no favour hops; 'It is little more than an age,' he says, 'since hopps (rather a medical than alimenta vegetable) transmuted our wholesome ale into beer, which doubtless much altered our constitutions. That one ingredient, by some not unworthily suspected, preserving drink indeed, and so by custom made agreeable, yet repaying the pleasure with tormenting diseases, and a shorter life, may deservedly abate our fondness for it, especially if with this be considered likewise the casualties in planting it as seldom succeeding more than once in three years, yet requiring constant charge and culture besides that it is none of the least devourers of young timber.' 48

Richard Bradley, a Cambridge professor who wrote several works on agriculture at the beginning of the 18th century, says, in 1729, 'that ground never esteemed before worth a shilling an acre per annum, is rendered worth forty, fifty, or sometimes more pounds a year by planting hops judiciously upon it. An acre of ground cultivated for hops shall bring to the owner clear profit about £30 yearly for a long season, but I have known hop-grounds that have cleared above £50 yearly per acre.' At the time when Bradley wrote, there were about 12,000 acres in England planted with hops; before that their cultivation had not been very extensive. Between 1750 and 1780 this area had increased to 25,000, and in 1800 there were 32,000 acres; in 1878 71,789 acres, the largest recorded; in 1905 48,967 acres. The great increase prior to 1878 wa mainly due to the abolition of the excise duty in 1862, which on an average was equal to an annua charge of nearly £7 per acre.49 In the same year the import duty was taken off, but in spite o this the acreage planted increased until 1878. In 1882 there was a very short crop in England and the average price was £18 10s. per cwt., some choice samples fetching £30. This was mos unfortunate for the hop-growers as it led to the increased use of substitutes for hops, such as quassia chiretta, colombo, gentian, and since then the substitution of these drugs has been extensively continued, to the loss of the planter and to the detriment of public health.

In Herefordshire, as in the other six chief hop-growing counties, the parishes in which hops are cultivated are nearly the same as they have been during the last hundred years, and in these parishes the same land, generally speaking, has been used for hops for the last fifty years. In 1840 Hereford shire and Worcestershire together only grew about 6,000 acres, in 1905 Herefordshire alone grew 6,851, the increase being due to the fact that brewers have lately shown a greater fondness fo Worcesters, for the quality has improved owing to better cultivation and management. Probably no branch of agriculture has shown so much progress during the last sixty years as hop-culture.

It may be well by way of contrast to give some extracts from what is perhaps the earlies treatise on hop-growing by the above mentioned Reynold Scott. In the preparation of a hop-garden 'if your ground be grasse,' he says, 'it should be first sowen with hempe or beanes which maketl the ground melowe, destroyeth weedes, and leaveth the same in good season for this purpose. 'At the end of Marche,' he continues, 'repayre to some good garden to compound with the owner for choice rootes which in some places will cost 5d. an hundreth. And now you mus

<sup>45</sup> Thorold Rogers, Hist. of Agric. and Prices, iii, 254.

<sup>46</sup> Ibid. iv, 546. In Belgium to-day roots previously blanched are sold for vegetables at from 10d. to

<sup>47 &#</sup>x27;A perfite platforme of a Hoppe Garden,' 4-5, in Arte of Gardening by R. Scott, 1574.

<sup>48</sup> Pomona (ed. 1664), i.

<sup>49</sup> Journ. Roy. Agric. Soc. of Engl. (1890), 324.

choose the biggest rootes you can find such as are three or four inches about, and let every roote be nine or ten inches long,' and contain three joints. Holes were then to be dug at least 8 ft. apart, I ft. square, and I ft. deep, and in each two or three roots planted, and well hilled up. Three or four poles were to be set to each hill, fifteen or sixteen feet long 'at the most except your ground be very rich,' the poles nine or ten inches in circumference at the butt so that 'they shall endure the longer and stand the wind better.' After they were put in, the ground round the poles was well rammed. The hops were tied with rushes or grass. During the growth of the hops, not more than two or three 'stalks' being allowed per pole, after the first year the hills were gradually to be raised from the alleys between the rows, thus giving the ground a good stirring, and the greater 'you make your hylles the more hoppes you shall have upon your poales.' 50 At hop-picking time, the bines, when cut, were carried to a 'floore prepared for the purpose' 51 where they were stripped into baskets, and Scott remarks 'it is not hurtfull greatly though the smaller leaves be mingled with the hoppes.' If the weather was wet the hops were to be stripped in the house. In the winter Scott recommends that the hops be thrown down and left to lie bare to 'restraine them from to rathe sprynging.' He gives minute instructions as to drying, too long to describe in this article, but it may be noted that the fire was of wood, and some dried their hops in the sun, a process he condemns. Many of the sacks then came from Flanders, and were packed by treading in the manner in use for centuries, and if no sacks were procurable barrels might be used. A hundred years after Scott John Beale wrote: 'For hops we make haste to be the chief hop masters in England, our country (Herefordshire) having store of coppice woods and many men planting abundance of the fairest and largest sort of hops. All about Bromyard in a base soil there is great store.' 52

At the end of the 18th century the hops in 'the highest estimation in the county were divided

into two classes,' White and Red:

#### WHITE

1. The Golden Vine, a white hop with a red vine.

- 2. Cooper's White, an excellent hop 'lately introduced.'
- 3. The Farnham White lately introduced from Farnham.
- 4. The Kentish Grape.
- 5. The Mathon White.
- 6. The Townend Green wired hop, 'a remarkably large square hop first grown at Townend in the parish of Bosbury.'

#### RED

- 1. The Red Vine or Chester red.
- 2. The Newcombe.

The hop-yards of Herefordshire are chiefly situated upon the eastern side of the county, mainly upon the better marls of the New Red Sandstone, and the rich and extensive alluvial deposits of the Wye, Lugg, Teme, and other rivers. It is said that the land by the Teme will grow hops for ever, on the other hand very old grounds are more liable to blight and mould and less able to resist changes of weather.<sup>53</sup>

Many of the inferior hops in the county have been grubbed of late years, and Mathon Whites, Bramlings, Goldings, and Mayfield Grapes planted in their place, and there has been more improvement in condition, quality, and appearance of 'Worcesters' during the last generation than in any other district. The Golding is the best of English hops, the Bramling being a Golding of slightly different shape, and somewhat earlier. Other early varieties are Meophams, Prolifics, and Fuggles. The Mathon, first grown in Mathon, a parish in Worcestershire, is a very favourite hop in that county and Herefordshire.

In Herefordshire hops are planted from 6 ft. 6 in. to 7 ft. apart each way, the number of hills per acre varying from 900 to 1,000, but there is a tendency to set them more closely together. Old pastures and old apple orchards are excellent sites for hop-yards, for they are generally in the best and most sheltered spots. Planting is generally done in October and November, square holes being made with a spade, into which the sets are pressed firmly, an inch or two being left above the ground, the roots having first been well trimmed and dead bines cut off. In the spring a small pole is put to each hill and the bines tied to it, the ground between the rows and round the hills being kept well hoed.

by By the illustrations in Scott's book the hills appear to have been from two to four feet high, pp. 27-31.

By Bradley's time, 1727, the present hop crib had come into use; see his Country Gentleman and Farmer's Director, 129.

Farmer's Director, 129.

in that part of the county bordering on what may be called the Hop District of Worcestershire.' Rural Econ. of Glouc. (1796), ii, 190.

It was formerly believed that farmyard manure from bullocks fed on oil cake was the only proper fertilizer for hops; and it may be doubted if there is any as good, but rape dust, shoddy, fur waste, and other manures have for some time been largely used, and artificial fertilizers such as nitrate of soda and sulphate of ammonia given as a stimulant.

Cutting or dressing is usually done in March or early in April before the plants have put forth shoots, all the fibrous growth being cut off close to the ground. Until a comparatively recent date poles (the best being of ash) pitched in the spring and removed at picking time formed the sole method of supporting and training the plants. In 1860 creosoting the poles began to come into fashion and largely increased their durability. About the same time various methods of training plants upon wires and string supported by permanent uprights were also introduced and have been extensively adopted. Their great advantage is that the wind which often works havoc with hops has not so much effect. There is an economy of labour also in not having to set up the poles annually, but there is more trouble in tying. One of the most usual methods in Herefordshire is to place stout posts at the end of each row, and at intervals if necessary, with wire stretched from the tops only, the plants being trained up strings of fibre fastened by pegs to the ground close to each stock and on to the wire. Tying is generally the work of women, as is the pulling out of rank and hollow bines which are frequently unfruitful. The hop climbs with the sun, and has fortunately an instinctive habit of revolving and laying hold of support. The best material for tying is still the rush as used by Scott, for string expands and contracts with the changes of the weather.

Some planters continually stir hop-land deeply throughout the summer, others only stir lightly after July in order not to disturb the dense network of fibres running through the soil. The object of all good hop-growers is to have as good a tilth as possible for the fibres to work in, and for retaining heat and moisture. In June the stocks are earthed by placing four or five shovelfuls of fine soil over them to stop the extraneous growth of bines from the stocks and keep them in their places.

In the summer the hop-fly or aphis is almost certain to come, a pest which has made periodic appearances ever since hops have been grown in England, though in the last two generations it has been more frequent. Before 1860 there was no method of fighting the insect, but about that time the practice of washing with insecticides was introduced, and now the hop-washer is put into use directly it appears, with the result that many valuable crops have been saved. The wash most commonly used and most efficacious is composed of seven to nine pounds of quassia chips and six or eight pounds of soft soap to a hundred gallons of water. It is somewhat remarkable that additional pests apparently unknown before have made their appearance with the advent of the washing-machine, such as the red spider, fleas, and jumpers. Other enemies of the hop-planter are wireworm, mould, and mildew.

More attention is paid to clean picking than formerly, and Reynold Scott's practice of leaving the smaller leaves in the hops is not followed except by the careless. A number of the Herefordshire pickers come from the large towns near, and their housing is much better attended to than it used to be, when they were often huddled together like pigs. Picking takes about half the time it used to as there is no sale for hops browned by over exposure.

Drying is perhaps the most important operation in hop-growing, and many a well-grown sample has been spoiled by bad drying. Hops are not laid so thickly on the kilns now, consequently there is not so much moving and the hops come off the kiln whole, and 'Worcester' growers have lately paid more attention to drying than others, with beneficial results. The old practice of packing hops by means of a man treading them into the pockets has been superseded by pressing machines, which save much time and labour.

The expense of growing hops has increased during the last forty years or so owing to higher wages, washing, and better methods of cultivation; many of the best growers to-day spend £40 an acre in their efforts to ensure a crop. Mr. Marshall, writing in 1798, put the expense of growing an acre of hops 'at twenty pounds; exclusively of that of picking, drying &c., which is uncertain.' A man conversant on the subject 'told him the price was £18 per acre.' <sup>54</sup> The following is the balance sheet of a Herefordshire grower in 1793 for a hop acre during the first five years of cultivation <sup>55</sup>:—

#### FIRST YEAR

									£	5.	a.
Rent .	•	•				•	•		I	0	0
Labour.	•	•	•			•	•	•	1	3	0
5,000 roots	at 6 <i>d</i>	. per	100			•			I	5	0
2,000 poles	at 22	s. per	100	delivere	ed	•			12	0	0

<sup>64</sup> Marshall, Rural Econ. of the Southern Counties, i, 285-6. This is apparently a statute acre, as he compares the produce of an acre of hops with an acre of wheat.

55 Introductory Sketches towards a Topographical Hist. of Herefs. by Rev. John Lodge (1793), 54-6. A hop acre of 1,000 stocks varies in its relation to a statute acre according to the distance between the stocks and the rows.

				S	ECOND	YE	AR				£	S.	d.
Rent and lab	0.114		_								Z.	3	0
Picking 4 cwt				•							1	10	0
Drying at 5s.			•								1	0	0
Cloth and pa											0	17	0
Tithe .											0	8	0
Manure			,					•	•	•	0	15	0
Duty .							*	•		•	I	18	7
,C II a	(	°4 tha	477047	ice n	rica						23 16	19	7
4 cwt. of Ho	ps at £	,4 the	avcia	gc P	1100	•	•	•	-	-			
Loss to growe	er first	two y	ears			٠	•		•	•	7	19	7
			Тнв	O	THER '	THR	ee Y	EARS					
											£	S.	d.
Three years'			wal o	f pol	es) at 2	900 P	er yea	r.	•	•	3	12	0
Three years'	rent	•		•		٠	•	•	•	•	3	9	0
Three years'		•		•	•	•	•	•	•	•	3 4	10	0
Picking 12 c		•	•	٠	•		•	•	•	•	3	0	0
Drying do. Cloth and pa			•	•	•	٠	•		•	•	<i>J</i>	11	0
Tithe .	icking	•	•	•	•		•				1	4	0
Manure.	•	•		•	-		•				2	5	0
Duty										•	5	15	9
/	-											6	
											29		9 7
Add expense	for hr	st 2 y	ea <b>rs</b>	•		9	*	•	•	•	23	19	
											53	6	4
These was	a#012	I A CVIII	t at	C 4							48	0	0
Three years' Second year'			-	54	•	•		•		•	16	0	0
Second year	s crop		•	•	•	•	•	•	·	-			
											64	0	0
Less exs.	•	•	•	٠	•	*	,	•		•	53	6	4
Profit in five	yea <b>rs</b>	•	•	•	•	٠	٠	•	•	•	10	13	8 56

The compiler of this account remarks, as he well may, that the average return from an acre of hops has never been very large, and it is the chance of making a lucky hit that affords so much fascination in growing them. Arthur Young, however, about the same date, estimates the cost per statute acre at £31 10s. as under:—

											£	5.	$d_*$
Rent .					•						3	0	0
Tithe .					•						0	10	0
Rates .			•	•							0	10	0
Labour o	f all sort	s.							-	•	10	0	0
Manure						•				•	4	0	0
Duty, ab	out .							•		•	5	0	0
Poles .								•		•	3	0	0
Drying,	packing,	&c.					•			•	2	0	0
Interest of	on outlay	and	cost				•			•	I	0	0
Interest of	on capita	1.					•			•	2	10	0
											31	10	0

Such divergent estimates as the three here given are somewhat perplexing; the Herefordshire grower of 1793 who only spent £1 35. a year per acre in labour, cannot have been very enterprising, and as Marshall and Young were both careful and practised observers their accounts are almost certainly accurate. If the three last items of Young's account and the cost of picking are

<sup>56</sup> This account is given because it is contemporary and therefore interesting, but it is apparently careless; for instance the 2,000 poles should not be debited, especially as renewals are also charged for, nor should all the roots be charged against the first five years, and the cost of labour is very low.

added to Marshall's, the discrepancy between them is considerably lessened. To-day the average cost may be set down at  $f_{35}$  an acre.

											£.	s.	d.
Manure.						•	•	•	•		6	10	0
Digging or p	loughi	ing				•	•				0	19	0
Cutting.											0	6	0
Poling, tying	, eart	hing,	&c.								2	3	0
Cultivating b	y nid	geting	gand	diggin	g rou	ınd an	d hoe	ing hi	lls .		3	0	0
Stacking, stri											0	17	0
Annual renev											2	10	0
Picking, dry	ing, r	ackir	ig, ca	rriage,	sam	pling,	sale	of an	aver	age			
crop of											IO	5	0
Rent, rates, 1	axes.	repair	rs of	kilns, a	nd ir	iter <b>e</b> st	on ca	pital			6	0	0
Sulphuring	. /							•			I	0	0
Washing						•					I	IO	O
													_
											35	0	0
											-		

If wirework is used the wear and tear of wire and poles may be set against renewal of poles in

pole work.

The profits vary, and always have varied greatly, though it is not likely that the very high prices of former times will recur, as foreign imports and hop substitutes will probably prevent this. We have seen the variation in prices in early years; coming to later times, in 1823 the whole of the old duty paid by the 'Worcester' District, including Herefordshire, was only £4 35., out of a total duty for England of £26,057. On the other hand, in 1837, it paid a duty of £38,731; and again, in 1847, only £1,471 out of £216,268.

'Upon the whole,' says an 18th-century writer,

though many have acquired large estates by hops, their real advantage as an article of cultivation is perhaps questionable. By engrossing the attention of the farmer they withdraw him from slower and more certain sources of wealth. They encourage him to rely too much upon chance for his rent, and to depend upon the hop-bine rather than the honest labour of the plough. To the landlord the cultivation of hops is an evil, defrauding the arable land of its proper quantity of manure, and thereby impoverishing his estate.

Since these words were written there have doubtless been many who have endorsed them.

#### FRUIT

'This county,' says John Beale writing in 1656, 'is reputed the orchard of England,<sup>57</sup> and in the generality of good husbandry excelleth many other places.' From the greatest person to the poorest cottager in his day all habitations were encompassed with orchards and gardens, and in most places the hedges were enriched with pears and apples.

He had not a very high opinion of perry; 'of these the pears make a weak drink fit for our hindes and is generally refused by our gentry as breeding wind in the stomack.' One of the most famous perrys was then made in the neighbourhood of Bosbury, which, though perry as a rule was 'most pleasing to the female palate,' had many of the masculine qualities of cider, was quick, strong, heavy, and high-coloured, retained its strength two or three summers, and in great vessels in good

cellars for many years. This was made from the famous Barland pear.

Beale thought the Gennet Moyle made the best cider, even better than the much-commended Red Streak, and if suffered to ripen upon the tree to be yellowish and fragrant and then hoarded in heaps under trees two or three weeks before grinding was the most fragrant of all cider fruit, and gave the liquor a most delicate perfume. The crab was commonly ground for verjuice and sometimes hoarded till near December and then mingled with cider or washings of cider to make a 'mordicant' drink which 'doth well please our day labourers.' Yet one of the most delicate kinds of cider was made from the Bromsbery crab, 'being much like a stomack wine.'

About this time, 1656, there was a famous apple tree, ungrafted, growing on old pasture near Ocle Pitchard which ordinarily yielded four hogsheads of 64 gallons without any mixture of water. It was supposed to be hundreds of years old, and its growth or decay was so slow that its owner, who

had watched it for 80 years, had never seen any change in it.

As for the locality of fruit-growing then, the same writer says, 'about Bromyard a cold air and a shallow, barren soil, yet store of orchards of divers kinds of spicey and savoury apples. About Rosse

and Webley and towards the Hay a shallow hot sandy or stony Ryeland, and exposed to a changeable air from the Disgusts of the Black Mountain, yet here and all over Irchinfield and also about Lemster both towards Keinton and towards Fayremile in all these barren provinces as good store of undeceiving orchards as the richest value in the county even by Frome banks.'

In common orchards the trees were planted 20 ft. apart, but in the best 30 ft. at least. The idea of sending fruit to distant markets apparently did not enter Beale's head, for he says 'a small parcel of ground will furnish store for all his household and for all his neighbourhood, and to play away upon graffings and novel experiments.' Yet there must have been an external trade, as many of the old orchards were much too large for only domestic use.

It is interesting to learn that 'in vines our gentry have lately contended in a profitable ambition to excel each other, so that the white muscatel is vulgar, the purple and black grape frequent, the Parsley grape and Frontiniack in many hands.' 58 Unfortunately, the writer does not say if these

grapes were grown under glass or in open vineyards as in the Middle Ages.

'Herefordshire,' says Marshall in 1788, 59 'has ever borne the name of the first cider county.' The management of orchards and their produce was, however, far from being well understood, and farmers had only tried to supply their own immoderate consumption, but the late extension of canals and 'the present facility of land carriage' were expected to extend the market for cider. All the old fruits at this time had already been lost or were declining. The Red Streak was given up, the Stire apple going off, and the Squash pear could no longer be made to flourish, yet, as we have seen, great efforts were now being made to remedy this. The apple which stood highest in general estimation for cider-making was the Stire, next the Hagloe crab, first produced about 1718 at Hagloe, in Gloucestershire, near Ross. Then came the Golden Pippin, the Red Streak, of which only a few old trees remained, the Woodcock, Must, Pauson, Royal Wilding, Dymmock Red, Coccagee, Russets of various kinds; Bromley, Foxwhelp, Redcrab, and Queening, the last four being all large red apples. Of pears the Squash was in much the largest esteem; the Oldfield, Barland, Red pear, Huffcap and Sack also being well known as good perry pears.

A considerable quantity of the cider and perry made in the county was now sent to external markets, 60 the principal one being London, from where and also from Bristol it was sent to the East and West Indies and other foreign markets in bottles. But the consumption at home was much greater, not only London and Bristol, but 'every town of this Island' as well as Ireland were supplied by Herefordshire. The immediate purchasers, termed 'cidermen,' for these markets were dealers who lived in the district, chiefly at Upton and Ledbury, but Bristol, too, sent buyers, and of late years London dealers had bought large quantities. The liquor was sold either immediately from the press, or after the first racking, or ready for market in casks, or occasionally in bottles. The growers generally objected to selling the fruit, as thereby they lost the washing of the 'must' for family liquor, and most of the liquor was sold straight from the press, the dealers preferring to have the fermenting of it and an opportunity of suiting the taste of their customers. The London and Bristol dealers had places in or near the county, chiefly at Upton and Hereford, where they worked

the liquor they had bought.

Prices were much more fluctuating than in these days of foreign competition, a night's frost in the spring would treble prices next day. In the 'great hit' of 1784 common apples sold at from 1s. 6d. to 2s. a sack of four corn bushels; but Stire apples sold at 5s. to 12s. a sack. In 1786 the crop was short, common apples were eagerly sought by dealers and Stire apples fetched from 10s. to 18s. a sack. In 1788 there was a fine crop and common apples again sold at from 1s. 6d. to 2s. and Stires at from 6s. to 14s. The price of common cider was generally fixed by the dealers at Hereford October Fair, the growers, as usual, not being consulted. In 1784 the price was settled by them at 14s. a hogshead of 110 gallons, but owing to a sharp frost which spoiled the fruit, the price went up to 25s.61 In 1786 it went up to 5 guineas a hogshead and in 1788 down to 16s., but the ordinary price of common cider was from 25s. to 42s. a hogshead, Stire cider, however, was worth £5 to £15 per hogshead. Common perry was generally half a guinea and Squash pear perry as much as £5 10s. a hogshead, and even £12 10s. from the press had been realized for the latter. The cost of picking, hauling, hoarding, grinding and pressing, if properly done, was 5s. a hogshead, and there were public mills, one of which at Ross charged 1s. a hogshead, the grower finding the horse, another at Newnham charged 3s. a day for the mill and horse. Marshall was astonished at the high prices of bottled cider and perry; the common price at the inns was 1s. a quart bottle, sometimes 2s., which, considering the relative purchasing power of money about 1790, was very high.

59 Rural Econ. of Glouc. ii, 206. 60 Ibid. ii, 364.

<sup>&</sup>lt;sup>58</sup> Herefs. Orchards, 20. There was a vineyard of 5 acres at Barking Nunnery in the 16th century; see Rogers, Work and Wages, 101.

<sup>&</sup>lt;sup>61</sup> The ordinary price of a hogshead barrel then was a guinea, in 1784 it was raised to a guinea and half, so that the cask was worth twice as much as the cider in it.

At this time individual farmers in the county produced as much as 500 hogsheads of cider and perry, some of the orchards being from 30 to 40 acres each. It is clear then that at the close of the 18th century the making of fruit-liquor in Herefordshire was a flourishing industry, and we may well inquire the cause of its decline. In the first place, during the great French war the price of corn and meat rose enormously, and to produce these farmers grubbed up many of their orchards and became careless in the making of cider and perry. Secondly, middlemen and merchants adulterated the liquor and thereby brought it into discredit.<sup>62</sup> Yet even during this period there were some who were trying to prevent the retrogade movement. Mr. Knight, to whose skill and energy Herefordshire owes a great debt, presented several new apples to the world, among them the Grange apple, which fruited first in 1802 and obtained the prize of the Herefordshire Agricultural Society. He also produced the Siberian Harvey in 1807 and the Foxley in 1808. Of late years, aided by more careful and scientific methods in the manufacture, great efforts have been made to restore these wholesome drinks to the position they held in the days of Beale and Evelyn, who said 'Cider is above all the most eminent soberly to exhilerate the spirits of us hypochondriacal islanders and chase away that unsociable spleen.' Most of the orchards in Herefordshire are planted with standard fruit trees on grassland, the area of land that is regularly cultivated between the trees being small in quantity compared with Kent. The apple and pear orchards are mainly situated on the rich alluvial deposits in the river valleys and upon the loam and clay soil of the Old Red Sandstone formation. Many of the orchards are very old; in 1897 there were standing at Hellens Barland pear trees planted in the time of Queen Anne, producing excellent perry. 63 As a rule trees have been renewed as the old ones died, sometimes, however, very irregularly and sometimes not at all, and the general appearance of the orchards, owing to the carelessness of many of the farmers, does not compare well with those of Kent. Many of the orchards have been formed by planting fruit trees between the rows in the hop-yards, the hops being grubbed up when the trees are well grown, and the land thus converted into orchard, for land suitable for hops will almost always grow apples.

Apples may be divided roughly into three varieties, those grown for cider; dessert or table apples, and cooking apples. The chief cider apples in Herefordshire are, the Foxwhelp, the most celebrated of all, Red Cowarne, Hagloe Crab, Brandy Apple, Cockagee, Stire, Dymmock Red, Redstreak, Royal Wilding, Garter, Skyrme's Kernel, Knotted Kernel, Cherry Norman, Strawberry Norman, White Norman, Cider Lady's Finger. The chief dessert apples are the Ribston, Golden, and King Pippin, Cox's Orange Pippin, Margel, Court of Wick, Blenheim Orange. And the chief cooking, Keswick,

Codlin, Wellington, Lord Suffield, Collins, Alfreston.

The principal perry pears are the Taynton Squash, according to the Herefordshire *Pomona* the first and best, the old Barland, Huffcap, Oldfield, Rock pear, Pine pear, Blakeney Red, and Thorn pear. The best known dessert pears, the Doyenne d'Eté, Chaumontel, Cattilac, Williams' Bon Chrétien, Beurré Diel, Bergamot, Duchesse d'Angoulême, and Marie Louise. It should be remembered, however, that the same sort of fruit may be called by different names even in the same parish.

In 1877 Herefordshire had more acres of fruit-land than any other county, the figures for the principal being:—64

												Acres
Herefordsh	ire										•	24,885
Devon .		•	•			•	•			•	•	24,776
Somerset	•	•	•	•	•	•	•	•	•	•		20,921
Worcester	•		•	•	•	•	•	•		•	•	14,621
Kent .	•	•	٠	•	•	•	•		•		•	13,097
Gloucester		•	•									11,965

In 1905 Kent had deprived it of first place, and the respective acreage now divided into small fruit and orchards was:—

										Small fruit	Orchards
Kent .	•	•	•	•						22,050	29,304
Hereford	٠	•	•	•	•		•	•		910	27,981
Devon . Worcester	•	•	•	•	•	•	•		•	1,363	27,472
Somerset	•	•	•	•	•	•	•	•	•	4,582	22,536
Gloucester	•	•	•	•	•	•	•	•	•	633	25,405
O10 accotes	•	•	•	•	•	•	•	•	•	1,650	20,338

<sup>62</sup> C. W. Radcliffe Cooke, Cider and Perry, 9, 10.
64 Journ. Roy. Agric. Soc. Engl. (2nd ser.), xiv, 472.

63 Ibid. 6.

